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"AGRICOLAS." . . . . . *Virg.*

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WORK FOR THE MONTH.

SEPTEMBER.

The earlier the preparation of the ground for fall grain be commenced this month, the better chance of success will there be. The land intended for wheat especially, should be ploughed, harrowed and rolled sufficiently early to allow of being harrowed again just before being seeded, say at an interval of a fortnight after being first broken up. The object of this subsequent culture is, to give time to the seeds of weeds to start and be destroyed by the pressure of the tines of the harrow. If pains were taken, in the preparation of land to be appropriated to wheat, the result would be a comparative exemption from weeds, and consequently the wheat plant in the progress of their growth would not be robbed of its nutriment, which should exclusively be appropriated to them; nor would there be so much trouble when the crop comes to be threshed in separating its grain from the seeds of those weeds, which add so much to the expense and labor of preparing the wheat crop for market. This view will, we think, appear obvious to every one who will seriously and dispassionately look upon the subject. By the process of ploughing, the seeds of weeds, which had been buried by previous culture, are restored to the surface, or sufficiently near, to be within vegetating depth, and being thus brought in contact with the atmosphere and its influences, soon germinate and grow. Now then, if we destroy these, by subjecting them to the lacerating operation of the harrow, the chances are that we shall have a tolerably clean field to commit the seed wheat to, and as a consequence, its occupancy will be mainly enjoyed by the wheat plants, and we shall thereby ensure a larger product of wheat, as the nurturing principle of the manure applied will be appropriated to the wheat, instead of being divided between it and the weeds; for the latter requires food as well as the wheat plants, and will successfully battle for it, if you permit them to occupy the ground.

Ah! but says the wheat-grower, this subsequent harrowing absorbs time and money! True, it does; but then, if you thereby secure an increase of five bushels per acre to your wheat crop, surely the time and money thus appropriated will prove to have been well expended, to say nothing of the superior cleanliness of the grain when grown, and the saving of labor in preparing it for market.

We have always contended for the propriety of more attention being paid in the preparation of our ground for our crops than most farmers pay to it, and we venture the assertion, that there is no crop requiring more thoroughness—more neatness—than does the wheat crop. Every succeeding year's observation has but served to convince us of the truth of this position, and the loss arising to wheat growers from neglecting its teachings.

Commending the propriety of *timely*, *thorough*, and *neat* preparation of the ground, to our friends, we will proceed to call attention, and to point out such others as should be attended to throughout the month.

In the first place, we shall direct attention to the preparation of the ground for the

CULTURE OF WHEAT.

Ploughing and preparation of the land. We hold these to be agricultural truths,—*that deep ploughing, on sound land, is essential to the growth of a large crop, and that no crop is benefitted more than the wheat crop by deep ploughing and thorough pulverization.* Should we be asked, how deep we would plough? Our answer would be,—that that would depend upon the condition of the soil. If the land was sound, that is, not incumbered with water lying upon its surface occasionally, we would at all events plough it at least 8 inches deep, and, if possible, subsoil it as many inches in depth more. Ultimately, we should strive to turn up the soil to the depth of 10 or 12 inches, and we should be fearless of all evil consequences from inverting the subsoil to this extent; for we have faith in the power of the air, and the rains, to neutralize any evil effects, provided there be lime and other proper food in the soil to nurture and sustain the growing crops, especially if such land had been subsoiled and drained. In deepening the soil, it might, perhaps, be most prudent not to increase the depth in any one year more than two inches, as it has been written by the greatest of authors, that "discretion is the better part of valor." For our own part, however, we have no misgivings—no fears in the premises, where lime, or ashes, and plenty of animal or organic manures are either applied, or pre existing in soils thus deepened.

The roots of the wheat plant have been traced, in their downward course, three feet, and even more, and the question arises,—is it not more reasonable, that injury would ensue to the plants, while penetrating the indurated subsoil in its natural state, excluded from the air, than after such soil had been turned up and subjected to the meliorating influences of admixture with the surface soil, and to the action of the atmosphere, as well as of that of water passing through it each succeeding rain, carrying down any poisonous matters to the lowest depths of the ploughed line, and there passing off, without doing material injury to the crop.

If the land had been previously drained, and subsequently subsoiled, there could be no doubt of such result, as the subsoil is broken up by the operation of the subsoil-plough, the air finds admission into its body and becomes mellowed and suited to the sustenance of the crop. If subsoiling adds to the expense of preparation, it will pay for it by the increase of produce in a four-fold ratio, in the course of a rotation of crops. If any one doubts the truth of this assertion, let him try an experiment upon a part of a field, and at the end of a rotation he will find what we say verified. Here we will seize the occasion to observe, that wet lands should never be subsoiled before being drained, and time allowed for the superabundance of water to pass off into the drains, and thus relieve the supermcumbent earth of its excess of water.

In proof of the efficacy of deep ploughing, and the benefits arising from thorough improvement of land, we will here state the product of a field of 15 acres of land in wheat the present season. It is part of the farm which we noticed in our journal in February last, pages 236, 237 and 238. This field was seeded to white Blue-stem wheat in the fall of 1853, and at harvest yielded 504 bushels 53 lbs. of wheat, or a fraction over 33 bushels to the acre of very superior merchantable wheat. That the wheat was superior we will state, that it was threshed and cleaned for market as soon after the late harvest as practicable, and the portion sold, viz: 473 bushels, 53 lbs. brought $1.90 per bushel—31 bushels were reserved for seed. We saw the Miller's certificates of the quantity bought by him, and therefore, speak advisedly in the premises. The product of straw on the field is estimated at 2 tons per acre, or 30 tons on the 15 acres. This straw, if it were sold, being only 4 miles from the city, would bring $10 per ton, or for the 30 tons, $300.

Now let us see the *gross* money-value of this crop of wheat and straw.

The 504 bushels 53 lbs. wheat, at the price the part sold brought, viz.: $1.90 per bushel is	$958 28
Estimated market value of the straw	300 00
	$1,258 28

For 15 acres, or at the rate of $83 per acre.

Land precisely similar to this in 1851, brought but 11 bushels of wheat per acre, and the question occurs, how has this increased capacity for production been brought about, and the answer is at hand, viz.:

1st. By liming;—and lime, as we have always contended, should always lie at the foundation in every effort to improve worn out land. *Lime first*, and then build your superstructure upon that basis. Where lands have been long in culture, and hence become exhausted of its lime, all experiments to make any permanent improvement without commencing with lime will prove vain.

2ndly. By ploughing in green crops, as clover, peas, &c.

3rdly. By deep ploughing and thorough pulverization.

By this treatment this land in 3 years was increased in its productive capacity upwards of 200 per cent. Say the expense of improvement was, as was actually the case, a fraction less than $40 per acre, to say nothing of the intervening crops, at the present season it has given back to its owner over two hundred per cent. upon his outlay, and is still in a condition with judicious manuring and a wise system of culture to produce large crops for many years.

Of Manures. Upon this subject we dwelt so much at large this time last year that there is scarcely anything left for us to say this, and could not, perhaps, do better than to refer our readers to what we then said upon the subject. We will however remark, that whatever animal manures that may be used should be rich in nitrogen, rich in ammoniacal compounds, for after all that may be said in the premises, the value of manure is only to be measured by the quantity of ammonia it may contain, as it is that that gives vitality and imparts vigor to plants and ensures remunerative products. In saying this, we do not wish to be understood as conveying the idea that ammoniacal compounds alone will produce a crop. Far from it; while we look upon it as the great active principle in the work of building up the plant, we view it only in the light of being an important, nay, an indispensible *auxiliar*, and hold, that to perfect and mature a crop it is absolutely necessary that the following inorganic substances be either in the manure applied, or that they be pre-existing in the soil, viz:—*Lime, iron, magnesia, phosphoric acid, sulphuric acid, potash, soda, and chlorine.* This will appear the more obvious when it is considered that it was ascertained by Professors *Way* and *Ogston*, of England, that a crop of wheat will remove from each acre, 31,54 lbs. of *phosphoric acid*, 0.44 lbs. *sulphuric acid*, 8.88 lbs. *lime*, 12.70 lbs. *magnesia*, 0.5 lbs. *per oxide of iron*, 39.23 lbs. *potash*, 2.14 lbs. *soda*. Now, as all these substances are proved by analysis to form part and parcel of the grain and straw of wheat, it follows as a matter of course, that all these substances must be pre-existing in the soil naturally, and if not, that the manure applied must contain each and all of them in order to insure a remunerative crop. The quantities of each taken up by an acre of wheat is not large, but in apportioning the manures, large allowances should be made for wasteage from various causes, for the seasons, for the nature of the soil, in relation to its retentive powers as to moisture, &c., while the manures applied, should be so distributed as to ensure that the entire surface receive as equal a proportion as possible, as such equality is essential to general success; and here it is but proper to observe, that the poorer spots of a field should receive more than those that are in a more fertile condition. The accurate and notable agriculturist always, and very wisely, too, takes these considerations into account.

Preparation of the Seed Wheat. To prevent smut, the seed wheat should be first washed in cold water to wash off adhering smut, then to place it, about a bushel at a time, in a pickle of salt and water made sufficiently strong to float an egg, stir the whole repeatedly, and as the light, diseased grains and seeds of weeds float to the surface, skim them off

Those have some *freshly slaked lime* ready, lay the wheat when soaked in brine on the barn floor, dust the lime over it, stir the wheat until every grain is coated with the lime, then let it remain on the floor a day, when it will be fit to be seeded.

For various other soaks, see vol. 8, pp. 81,82.

It is somewhat troublesome to soak one's seed wheat, but then, if we can secure our crop against smut it is certainly worth the trouble. Be sure if you undertake to soak it, do it effectually. Before putting it in the salt brine, pour fresh water over it until all the smut balls are broken and floated away, then place it in the brine, keep it stirred, and the floating seeds skimmed off, when it should be spread on the barn-floor and dusted, nay coated over with *freshly slaked lime*. See to the whole operation yourself, see that all the requirements are exactly performed and you may rely upon it, that your wheat, let what other evil beset it that may, will be free from smut. Besides the soaking will tend to faciliate the earlier vegetation of the seed. The seed when taken to the field should be carried in bags, and no more taken than can be sown in one day.

Selection of Seed.—It is an important matter to have good seed wheat. Some careful wheat growers instead of threshing out their seed wheat either by the *flail* or *machine*, place a barrel or hogshead in their barn, then take a sheaf of wheat, strike it gently over the barrel or hogshead as the case may be, two or three times, then lay the sheaf by to be threshed, then take up another sheaf, serve that the same way, until a sufficiency of wheat for seeding is obtained. The theory is, that by thus getting out one's seed wheat, none but the largest and earliest matured grains are separated from the straw, and hence that a superior kind of wheat may be produced. But let the seed be gotten out by the *flail*, which is better than by the threshing machine, as it does not break the chit of the grain—by the threshing machine, or by gentle strokes over a barrel or hogshead, be sure that the kind you seed is a good one, and do not neglect to soak it in the way before mentioned.

As to the method of seeding. If the land is deeply ploughed, thoroughly harrowed, and rolled until thoroughly pulverised and a fine tilth be obtained—and the soil of every wheat field should be thus prepared—then we have no hesitation in saying that the best way to put in wheat is by the drilling machine. But if the ground has not been thus carefully prepared, the only resort is to sow the seed by the broadcast plan. In seeding wheat by broadcasting, the duty should only be entrusted to careful, well experienced sowers, who not only know how to distribute the seed equally, but who will take pleasure and feel themselves morally bound to sow it well, carefully, and faithfully.

The drilling machine, when properly arranged, makes the drill, drops the seed at regular distances, and at a regular depth, covers it and rolls the ground, bringing the seed into direct contact with the earth, thus promoting prompt germination while the ridges made by the machine in making the drills, to a very considerable extent, protect the wheat plants against what is termed winter killing, but which mischief is more often done in early spring than during winter.

If the seed is broadcasted in, it must be only done after the ground has been well harrowed and rolled. The seed after being sown must be harrowed and cross harrowed in; then water furrows must be carefully made throughout the field so as to prevent the possibility of the lodgment of water in any part of it. A man should follow the plough with a shovel to clean out all clods or other matters that would obstruct the free passage of the water in its way to the outlet made to receive and carry it off. The water-furrows being made, the ground must be rolled across the furrows.

The operation of cleaning out the water-furrows should be repeated at intervals of a few weeks during winter and early spring, as at these periods of the year it is very important to keep the plants free from water.

Time of Sowing. Circumstances and location must determine this often mooted and never settled question. As a general rule, wheat may be seeded any time between the middle of this month and the tenth of October. Some farmers seed the Mediterrrnean wheat from the first to the middle of this month.

Depth of covering the Seed. From the results of several experiments both in England, and in this country, it is evident that seed wheat should not be covered more than from 2 to 3 inches. With the drilling machine depth can be graduated to a nicety—by using the seed harrow, this point can be measurably attained, so can it with a seed-plough with a wheel attached, if the wheel be properly adjusted to effect precision in depth.

The tee h of a common harrow, in the absence of a seed harrow, may be so graduated as to prevent its covering the seed more than 2 or 3 inches.

Quantity of Seed per Acre. If the ground be in a good state of fertility, naturally, or has been fertilized with animal manure, and has been properly ploughed and pulverized; when sown *broadcast*, 2 bushels per acre is about the proper quantity. If put in with the *Drilling* machine, 5 pecks per acre will be enough.

A very large number only sow 6 pecks of wheat per acre; but we think the quantity too small, for the following reasons:—1. A sufficient quantity of wheat should be sown to furnish plants enough to cover the ground to the exclusion of weeds:—2. Allowance should be made for loss by the Hessian fly and other insect enemies, and 3. Allowance should be made to provide against winter-killing.

Putting in Wheat with Guano, &c. Of all the animal manures ever used, Guano is certainly the best. Being, as it is, the excrements of sea-fowl, deposited upon islands where no rain occurs, decomposition until after its removal does not take place, so that it is brought here generally in a highly concentrated form, rich in all the ammoniacal compounds which give value to, and form the true measure by which manure should be estimated. That losses by exposure to the influences of moisture and heat, both, in the passage and after its arrival occur, there can be no question; but still after these drawbacks, it is the best of all manures; for the production of wheat there is certainly no manure which, for a single crop of wheat and a succeeding one of clover, that can compare with it. Experience has proved this, and from its popularity with wheat-growers, and it deserves to be so, the probability is, that all who can procure it to put their wheat in with, will do so; and, therefore we shall make a few remarks upon guano, generally, as well upon some views that have been recently advanced, as to its effects upon the soil. From the onset we have always contended since the use of guano has become popular in this country—and we wrote the

directions for its use upon which the first cargo that was ever imported into our country were sold—that clover seed should always be sown upon the wheat crop grown by *guano*, not because we believed there were any substances in guano that would rob the soil of its riches; but because the quantity of guano used though small, was sufficient to raise a good crop of wheat, and a good crop of clover after it, provided the proper conditions were observed, as soon as the wheat crop was harvested, which conditions are, the immediate application of 2 bushels of salt, 5 bushels of ashes, and 1 bushel of plaster, sown broadcast over the stubble upon the young clover, to give it a start, attract moisture and food from the air, and by forcing its growth protect it from the deleterious effects of the rays of the sun. If rain were to immediately follow harvest, this precaution might not be absolutely necessary, though under any circumstances, whether there be rain, or no rain, such application would do good. The ashes as well as the salt being great attractors, as well as absorbents of moisture, would husband the dews for the nourishment of the young clover plants, urge forward their growth upwards, and tend to encourage the expansion and downward growth of their lateral and tap roots, and thus enable them, through the latter, to draw moisture from below to sustain the branches and leaves above.

Again, from the small quantity of guano applied, 200 or 300 lbs. to the acre, we did not think it reasonable to suppose, that unless lands thus manured, were set in clover, that much ulterior benefit could accrue to the land, as the weeds would eat up the portion of the guano not appropriated by the wheat crop. We know, that if a clover crop could be secured, that that would restore to the land more than it could possibly take from it of organic manure, as from the nature of its constitution, its large series of broad leaves, would draw from the atmosphere a very large portion of nitrogenous food; besides, we know that from the great depth to which its tap-root descends, it would draw from the earth far beheath the depth of the plough-line, those inorganic substances of which the soil above had, by a long course of judicious cropping, been deprived, the which, when the clover came to be turned in, would be brought up and mingled with the surface soil.

It is not sufficient to give the repeated use of guano around Lima, as an evidence of its impoverishing nature, because the land there is *not* a soil, but, on the contrary, as near a barren sand as need be, almost if not quite destitute of those organic remains, which on decomposition, make soil. Again Peru generally, from the almost total absence of rain and the intensity of the sun's heat, cultivation, in a large portion of the country, could not be carried on, except by a wise system of irrigation which has been adopted by the inhabitants. By the introduction of water from the mountains, the farmers have been enabled to overcome the natural disadvantages under which they labor from the nature of their climate, and the naturally sterile lands which they cultivate. They use guano not only annually, but at every dressing of their crops, and at each time, and indeed oftener, let loose their aqueducts and sluices, and moisten the *sands*—for we will not dignify them to call them soils—in which their crops are pitched. Now, the guano itself contains some 12 per cent of organic matters, while the water from the mountains is charged with much more, and to these causes are to be attributed the power of growing crops on the plains of Peru; for without organic matters, no earth will bear fruit. Under such considerations then, it is no reason to point to the frequency of the use of guano in Peru, as an evidence of its impoverishing nature, for without it, and the aid of *irrigation*, the inhabitants of Peru could not raise anything. On the contrary, we take the fact of their being able to grow crops at all, through its use, as the best evidence of its being entitled to be ranked as a wonderful fertilizer, instead of being considered an impoverisher of the soil. He who expects an application of 200, 300 or 400 lbs. to an acre of land, to last a lifetime, or an indefinite period, must have a very limited idea of the nature of soils, their natural exhaustion, and the requirements of plants. If clover follow wheat manured with guano, and the clover be top-dressed as we have before advised, we do not doubt but that the soil will be in a better state of fertility, than it was prior to the application of guano, notwithstanding the production of the wheat and clover crops. And we would ask, what organic or animal manure, can do more than this? Is there any evidence from past experience that guano is an impoverisher of the soil? We answer the first question, by affirming that there is no manure known to agriculture that can do more,—and the second, by stating, that so far from its impoverishing any soil to which it has been properly applied, that it has improved it. We are free to give it as our opinion, that if guano were used in conjunction with stable, barn-yard, or compost manures, that it would be more lasting, not because of any defect in the guano itself, for it has all the elements on which plants delight to feed, but because of the increased quantity of food that would be added to the soil by such combination, and the increased power that would be given to the soil, of attracting food from the atmosphere, it being an admitted truth, that organic remains in any soil, increase its attractive and absorbent powers.

The difficult and unpleasant nature of the labor of reducing the hard lumps of guano, into powder, preparatory to sowing, have induced some persons to moisten the lumps before pulverizing them with water, and the idea has been started, that the moistening impairs the effective power of the guano. Now if wet, and left in a wet state for any considerable time before being sown and ploughed under there is no doubt that some portion of the ammonia would be driven off and lost, for heat and moisture are the very conditions requisite to produce decomposition in the ammoniacal elements in guano; but if spread and *ploughed* in as soon as thus moistened and pulverized, we cannot conceive that any material impairment of its most active principle could occur; and we believe, that if the moistening were effected through the agency of strong salt brine, that there would be no loss of ammonia, provided the guano were *ploughed* in soon after it was pulverized. The active principle of guano, is its ammonia, and as the nature of that is to ascend, it matters but little how deep it may be turned down, it will mount up and diffuse itself among the superincumbent soil, dispensing, of course, its nutriment to the roots of the plants in its ascent, as well as acting as a decomposer to the inert organic remains it might meet with in its course. That it superinduces decomposition in such matters, like other alkaline substances, we apprehend there can be no doubt. Moistening guano, to facilitate the rod-

of its lumps to powder, cannot, we should think, exert any greater injury to it than will each rain that falls after it may have been ploughed under, unless the lumps, after being moistened, are dissected, and left exposed too long to the united action of heat and moisture.

For the mode of preparing and using guano, see page 98, September No. Vol. 8.

Cleaning Granaries.—As we have repeatedly stated before, all granaries should be thoroughly cleansed before the grain is stored away therein. We shall give two plans of cleansing. The first is the mode recommended by that intelligent farmer, the late Hon. *William Carmichael*, of Queen Ann's county, of this State, a gentleman as distinguished for his agricultural knowledge as he was for his great worth in the walks of private life. This mode was practiced by him, with success for many years. The second is our own.

No. 1. Mr. Carmichael says:—"When my granaries are clear of grain I place powdered brimstone in an earthen pan, which for safety I put on the floor in a bed of sand, closing doors and windows, and fire it. The smoke either destroys them [the wheat wevil] or drives them off."

No. 2. In the first place, sweep the ceiling and sidewalls of your granary, then sweep the floor, take up the dust and dirt carefully, and burn it. Do not sweep it out of doors to breed millions of insects to damage your next year's crop. This done wash the ceilings, side-walls and floor with strong lime, and then complete your cleansing, by whitewashing the entire interior of your granary, ceiling, walls, and floor, as well as the outside.

Destruction of Rats. The best way to get rid of rats is to treat them to two or three messes of fresh fish unpoisoned, of which they are very fond. Then after an interval of a few days, get a few more fish, scale them, sprinkle arsenic over them, thus emboldened by their former exemption from harm, the rats will eat with avidity and restore their quietus.

Rye. This grain may be sowed up to the 15th of this month; but don't forget to give it some manure; though it will grow, and, is generally made to grow in very poor land, it cannot mature a good crop of grain without something to eat.

Orchards. Orchards that have not been manured for some years may be greatly improved by dressing each acre with a compost made as follows:

Mix together layer and layer about,

Ten two-horse loads of woods-mould, marsh or river mud,
2 do. of rotted dung, 3 bushels of bone-dust or 200 lbs. Amn. Phosphate of lime, 5 bushels of ashes, 1 bushel or plaster, and 2 bushels of salt.

Shovel the whole over and let it remain in bulk 3 months, then reshovel it over, and apply it to the land forthwith; plough it in 3 or 4 inches deep, so as not to injure the roots of the trees, then harrow well. Immediately around the trunk of the tree the compost should be put in with a hoe, finely used, so as not to do injury.

When done give the bodies of the trees as far up as the limbs, a dressing comprised in the proportion of 1 gallon of *soft soap*, 1 lb *flour of sulphur*, and 1 qt of salt. Apply with a paint or white-wash brush.

Clover. Broadcast over each acre of your clover which has been in grass two years, a mixture of 2 bushels of bone-dust, 5 bushels of ashes, 2 bushels of salt, per acre, harrow it in

If your meadow is an old one and the grass giving out and it is not convenient for you to plough it up, harrow and cross-harrow it with a heavy roller, apply to each acre of it the above top-dressing, then sow a peck of timothy seed per acre, harrow it in very lightly with a light harrow, and roll.

These operations should be performed between the 1st and 15th of the month.

Mixture for Stock.—Mix equal parts of *mild* oyster shell lime with salt and ashes finely sifted, and give to each head of stock 1 oz. twice or thrice a week.

Salting Sheep.—Your sheep should receive salt thrice a week. To save labor, you may place *Rock-salt* in a trap under cover, accessible to them, and they will partake of the salt themselves.

Setting out a Young Orchard. It is, as you know, too early to set out an orchard; but not too soon to begin to prepare for it. In the first place you should prepare a compost thus for each acre:

Mix together layer, and layer about,
10 two-horse cart loads of marsh, river, or creek mud,
5 " " " " of stable, or barn-yard manure,
4 bushels of bone-dust, 1 bushel of plaster, and 2 bushels of salt.

Mix the whole thoroughly together, throw it into bulk, and let it remain in bulk until wanted for use. Then haul it to the ground, spread it evenly, plough it in 8 inches deep, follow the plough with a subsoil; plough 6 inches more; then harrow and cross-harrow, and roll the ground, when it will be fit to receive the trees.

In planting out your orchard, be sure to get good kinds of apples from some reliable nurseryman, and have nothing to do with tree pedlars.

Cellars and out houses.—These should be cleaned and white-washed.

Cattle Yards—Pig Yards.—Haul into these as much rough materials as will cover them a foot deep, so spread them as to give them a dish-like form, so as to prevent the escape of the liquid voidings. Confine your stock therein of nights. In two months this will be good manure, haul it out and throw it into bulk. Then haul other rough materials into your yards, and arrange as before. By spring this also will be good manure.

Fences.—Examine and repair these.

Ditching and Draining.—Let us call your attention once more to the propriety of ditching and under-draining all your wet lands.

Tops and Fodder.—Let these be secured in good time, and when gathered carefully, stack them away, for you will need every pound the coming winter and spring.

Cow Stables and Sheds.—If you have no conveniences of this kind on your estate, have them erected forthwith; humanity and interest combine to dictate the policy of their erection.

PROPOSED EXPERIMENTS.—The propositions embraced in the proceedings of the Trustees of the Maryland Agricultural Society for the Eastern Shore of Maryland, will, we have no doubt, be adopted by the State and other Societies of Maryland, with alacrity. We have always believed that the details of practical experiments, such as those suggested in these resolutions, were of more value in the furtherance of agricultural improvement, than any other object that could be presented for our consideration.

VERY USEFUL SUGGESTIONS.

JULY 4th, 1854.

To the Editor of the American Farmer.

Being confined at home this day of national Jubilee by a protracted indisposition, whilst sitting alone under the thick shade of my own young and thrifty locust grove, with my injured crops full in view, my mind naturally turned to the most prominent objects around me, (as a tiller of the earth,) namely, the great destruction in our crops of wheat by the fly, joint worm and chinch bug; to the tobacco, by the late frosts and fly in the beds, in the hills, by the cut worm, bore worm, grasshopper cricket and horn worm; the oats, by the chinch bug; the corn crop, by the cut and bore worms, and the largest crop of chinch bugs I ever saw.—Take them all together, in these parts this surely has been the most disastrous year I have ever witnessed in twenty-five years attempting to farm. Attempting, did I say? Yes, for at, and since the last Virginia Agricultural Fair, I have fully learnt, that all this time I have been laboring quite in the dark—yet with the enlightening information so kindly and cheaply tendered to each and every Farmer, by Sands' ably conducted American Farmer, of Baltimore—by Allen's do. American Agriculturist, of New York, and Ruffin's do. Southern Planter of Richmond—by either of which (by all much better,) all the grades, from the humblest clod-hopper, to the first grade farmer, can well learn how to improve, if he will but carefully select and read such articles as will best suit his means and situation, and then diligently pursue their good advice with manly zeal; and I am well assured, these times of worms and bugs, which are so effectually reducing our profits in these times of high prices, will so awaken the farming community to their interest, as to induce them en masse to seek all the lights they can from these ably conducted agricultural papers of our country, and to unite their combined efforts so to improve each and every branch of agriculture, as to enable us to gather in more of these high prices, in spite of all the combined forces of the fly, worm and bugs. Some may say, can this be done. Yes, I believe it can and should be done. Now let every farmer go to work and think for himself over all the evils which now beset us—think over all of our errors—not individually alone, but collectively, from the State Agricultural Societies to the County Societies, and the various hole and corner clubs, down to our own individual selves. Think not as our farmers and overseers have been used to think, but think carefully, hard and thoroughly, just as a whole-souled eminent physician would think over the case of an extremely ill friend, whose death would be a national calamity, and on whose recovery his reputation so much depended, and my life on it, we can and will succeed. We should think when alone, but not always alone; we should collect, and think and talk, for "in union there is strength," and in nothing do I believe this adage is more clearly developed than in an agricultural union, and yet, strange to tell, now, when there is such pressing need, there is so little of it to be found. I do not mean by this that we should have more frequent State or County agricultural meetings, nor more agricultural papers, nor more frequent meetings of our hole and corner clubs, to talk over the good wines and meats, or cavil over the next Governor or President. No, no—but this I do mean, that each State, and every county of each State, should have an agricultural Society, to both of which, every [illegible] citizen of, and over twenty one years old, [illegible] unite himself, not as a passive or mere [illegible] member, but as a manly member, to do his best to promote each and every branch of the agricultural interest, as though all depended upon his own untiring exertions. I would then have each county divided into clubs, consisting of twelve members, to meet at each member's house alternately, once a month, to inspect minutely, every department on which the good of the agricultural interest could or all depend—to discuss freely and fully every improvement, and to criticise, most severely, every error; to keep a record of all its meetings, and that each member should be compelled to write out a full description of the last meeting, (or part) fine, to be laid out in books or stock for the use of the Society,) one of which should be selected by the meeting to be sent to the American Farmer, the American Agriculturist and Southern Planter, to be published by them if thought worthy of a place in their now very valuable papers, (but by a system of this kind, would be rendered so much improved and crowded, that only the best of these pieces could find their way to the public through their crowded columns,) that a subject should be selected, on which each member should write out his own views, one of which should be selected and likewise sent to the above named papers; that each member should select a crop on which to experiment, and report fully the entire process, and the results in actual weights or measures; that each member should pay five dollars, to be paid to the overseer, (or manager without an overseer,) as a stimulant to excite that very important and respectable class of Virginia agriculturists, to read and exert himself to the highest standard of improvement by a judicious application of which five dollars, I have no doubt in the first year would be to many a real saving of hundreds of dollars, and in a few years it would do more to advance the agriculture of Virginia, and other states, than any other means of so little cost; by which the grade of overseers could soon be raised to a standard worthy of a class occupying so responsible a position, and enable their employers to pay such wages as they would then richly deserve; whereas now I do believe the wages paid to nine tenths of them, had better be thrown away; for I have long been well convinced, the low grade of Virginia farming is justly attributable to the ignorance and inattention of our overseers, which is not so much the fault of the overseers, as it certainly is their employers, for the fashion now a days, is not to seek the best, but the cheapest overseer, and grind him down all the year. Whilst we are stimulated by our state, county and club societies, and our overseers by the [illegible] dollars addition to his wages, and his name published as the best in the club, will not honor and interest, prompt us to extend the excitement to each and every laborer upon the farm? This this too, can and should be done, and would likewise prove a most advantageous investment to each and every employer. Let every farmer have regularly explained rules of rewards, by which to stimulate each hand to a full discharge of his duty, either in money or a pig, or something else; for instance, there should be a pen, or [illegible] cabin, in which to deposit the ashes, [illegible] the yard; hen houses and pig sties, &c. the man who collected the most manure, and all around him cleanest, should at Christ[illegible]

tied to a fatted hog, extra; the next a half a hog; the third, a fourth, or quarter; the balance twenty-five cents, or nothing, and be compelled to attend to the feeding and watering of all the stock, and necessary drudgery of the farm, during the holidays; and the woman who kept her house and children cleanest, should be entitled to half a dozen hens, more than the others, to raise from; and a peck of extra flour, and gallon of extra molasses, at Christmas. Now, these are small things, but remember large oaks from little acorns grow. And I do believe, if this, or some better plan could be devised, and fairly tried, there is no one but who would be astonished at the mighty mass of the very best manure, which would be accumulated on every farm, thus trying it. This will be so troublesome, and expensive, some Dick, Tom, or Harry, may say why we have no time to go to see our neighbors, or to work our wives' gardens, nor five dollars to spare, after paying our taxes and overseers. This may, under the present ruinous system all be true. Yet if this or some better plan could be devised, and entered into, with a determination to give it a fair trial, I believe it would work out, at an early day too, a change so thorough as to time and means, as would greatly astonish its best friends. I do not mean by a fair trial, such as an intelligent neighbor of mine gave to the corn making process, as described by Com. Thomas Ap. C. Jones, a description of which I will give in some future article, as this is already too long. I have been a subscriber to your most valuable paper, from the 7th Vol., and shall be so long as it is any thing like as good as it now is—what can you furnish me with the 1st, 2nd, 3d, and 4th volumes at. I have had the 5th, 6th, 7th, 8th and 9th all bound with a sheet of blank paper between each No., which I find of great use in making my own notes. Would not a list of prices for bone dust, chandler's greaves, refuse salt, &c. &c. fall and spring, be of great service to your numerous subscribers? With best wishes for the success of your, and every other agricultural paper,

Yours, very respectfully,
GEORGE C. GILMER.

ON THE USE OF GUANO.

To the Editor of the American Farmer.

DEAR SIR:—I have for several years been a regular subscriber to your paper, which I have read with much pleasure and profit, notwithstanding I am often much at a loss how to proceed in my farming operations, in consequence of the conflicting opinions of some of the contributors to your columns.

The most important perhaps to your subscribers residing in those sections of country where Guano is extensively used, is the contrast we find in the opinions of Mr. Newton and Com. Jones. The former, in his address delivered before the "Rappahannock Agricultural and Mechanical Society," in November last, speaking of the improved agriculture in Eastern Virginia, says, "from the use of lime, marl, clover, plaster, and the best of all fertilizers—guano, Wheat has become our greatest staple, in the production of which we can defy the competition of the world. The only misgiving that crosses my mind is the fear that the supply of our greatest fertilizer may become insufficient, or be entirely cut off. This, I should regard as a public calamity, demanding the earnest consideration of the government and the country."

The latter, in his "Prize Essay" on the renovation of worn-out lands, to which was awarded the premium offered by the "Maryland State Agricultural Society," says, "of all the concentrated natural and chemical manures, now in general use by farmers and gardeners, Peruvian Guano is decidedly the favorite. It may not always be so. It ought not now to be the case. That upon extremely poor lands incapable of vegetable production without the use of powerful stimulants, 200 pounds of guano per acre, will produce an astounding crop of wheat, &c., cannot be denied, and if clover seed be sown with the fall crop, or on it in early spring a fair crop of clover may follow next year, if the season be favorable, and if that clover be well plastered and ploughed down in June, and again ploughed and seeded with rye or wheat in August or September, there will be an improved base to work on, by a regular rotation such as I have already laid down, (see his Essay,) which must be pursued, or the benefit of the guano will be lost and the land will be in a worse condition than ever. But guano should not be applied the second time to the same land, unless in combination with other fine manures, nor should it ever be applied in its crude state to land that is in good heart, i. e., land that will bring 30 bushels Indian corn or 15 bushels of wheat per acre, without it, not but the guano on some such land might increase the product of both wheat and corn to pay for itself, but if it should, the soil will be robbed of its fertility, and will be left in a far worse condition than when the guano was first applied; at least such have been my own results in its use, and such is the universal character of guano in Peru, as I there learned upon personal inquiry from the mouths of all persons (with whom I conversed) engaged in gardening and agricultural pursuits around the city of Lima, the capital of Peru, from whence we obtain the best guano."

In this same essay, the Commodore, like Mr. Ruffin, who is considered among the highest agricultural authorities, bases the most permanent improvement in the soil in the use of lime or calcareous manures, for he thus remarks: "I had good results and lasting benefit from the application of as little as 15, and even down to *five* bushels of fresh burned lime per acre, mixed with 3 or 4 times its bulk of road scrapings and even of virgin soil, dug out of banks on road sides, spread on grass lands in autumn." Com. Jones admits that if clover seed be sown with the fall crop of guanoed wheat or rye, or on it in early spring, a fair crop of clover may follow next year if the season be favorable.

From the best information I have, the sowing of clover seed in the wheat crop in early spring, that has been guanoed, is a very precarious mode of obtaining a crop of clover on our light and sandy soils, for notwithstanding there may be a good stand of clover up to the time of harvest, as soon as the luxuriant growth of wheat is reaped, without an almost immediate succession of rainy or damp weather, the clover is almost sure to wither and die under the effects of the summer's sun.—Those who cultivate a stiffer or more tenacious soil may rarely fail; while with the light and sandy soils there will rarely be success.

I am inclined to think that with the extensive use of guano there is in the aggregate more seeming than real prosperity with the agriculturists; its use, no doubt, has caused more farmers to ne-

glect, in a great degree, not only the use of lime, but to be less careful in husbanding the resources heretofore applied to, in the accumulation of manure through the farm-pen, stable, and wood-lands; for previous to the introduction of guano among us the spirit of improvement had become much diffused—compost heaps, much more common than now, and lime much more sought for—more litter strewed in the farm-pen, and more wood's mould removed to the field. In my humble opinion, a continued and increased attention to those more permanent improvers, up to the present time, would have brought the same fields that now show such a luxuriant growth of wheat, (not of Indian corn succeeding the wheat except with the re-application of guano,) to show, if not as good, but little inferior growth of the former, and a decidedly superior one of the latter grain, except, as above stated, it also has its dose of guano.

I deem the conflicting opinions of such eminent agriculturists as those above alluded to, on the use of guano, of paramount importance, as it involves a heavier outlay of money than any other I hav ver known the farmer to make for an increas d harvest; but, according to the opinion, not only of Com. Jones, but of many others with whom I have conversed, a sure and speedy improverisher of the soil, unless used under the many field, and non-grazing system, which is practised to but a small extent with us in this section of Eastern Virginia.

The above is written with the hope that it may elicit from those competent to the task a treatise on the best mode of improving the light and sandy soil cultivated by a large number of farmers with limited means, in the tide-water counties of Eastern Virginia, and all others cultivating similar soil, situated as most of us are, too remote from market for the disposal of the products of the garden and orchard. To this end, I think, Com. Jones in his "Prize Essay" has made the most recent important contribution I have met with, and but for his soil and locality (being convenient to markets for the disposal of all surplus products) would be as well adapted to the accomplishment of our desires as we could almost wish. But as agriculture is a "budding science" there is yet room for improvement, and particularly so, for the very different soil cultivated by most farmers in the lower tide-water counties of the Northern Neck of Virginia, if not of the Atlantic sea-board generally.

RAPPAHANNOCK.

ON THE NEXT CROP OF WHEAT IN VIRGINIA—THE APPLICATION OF GUANO.

CHARLOTTESVILLE, VA., Aug. 9, 1854.

To the Editor of the American Farmer.

After what you have published in reference to the joint worm in your two last Nos., it may be only necessary to add, that the Guano used should be made very fine so as to pass through a fine cockle sieve, and both wheat and guano deposited at the same depth. By observing this rule the moment the wheat germinates, it finds the food needful to give it a vigorous growth, which places it beyond the power of the fly in the fall, and if sown from the 24th of Sept. to the 10th October will bring it to head out by the middle of May, and be ready for reaping by the middle of June. In this case it is beyond the reach of joint worm and rust. At any rate neither will injure it much. It is obvious if it be sown in lumps as large as peas, many grains of wheat do not come in contact with it, and the lumps do not dissolve quick enough to administer vigor to the plant; every plant that comes up without coming in immediate contact at the outset with the guano, falls a ready prey to the enemy. That it is of importance to put the guano the same depth that the wheat is put, has been abundantly seen the last crop, where many a farmer not being able to get it in time, top dressed with it, and never saw any benefit from it. It is a good policy to use guano as dry as it is found in the bag, as from my experience in the use of it, the application of water to it only weakens its power. What does not pass through the sieve I throw down on the barn floor, and make a horse drag a heavy log over it, which crushes it as fine as powder, the horse going round and round, as in a bark mill, as long as it touches it; it may be ground out of doors in wet weather, by running a roller over it, on the hard dry ground. I have not yet seen a plaster and ley sower, but those who have tell me if guano can be made very fine, it will sow it, so that in no case could a spot an inch in circumference be found where it is not evenly dusted, if only one bushel used to an acre, and that it can put on 300 lbs. the same even manner all over the acre. Now Editor if this be so, (and two of my neighbors assured me that they were present, and saw half a bushel of plaster to the acre sown on a of Col. Randolph, of this county, and that searched in vain for a spot that was not dusted the plaster,) will it not be a desirable get such a machine, as I venture the assertion 300 lbs. of guano be put on an acre of land in a state, and evenly spread, and wheat and plowed in with a one horse plow, at the time stated, it will be a rare thing to see a stalk crooked joint. I do not deny that on the of a field, next to the woods, where trees far as the tree is high, they will be found. there be soil, and there be no draught it, but by the wheat, a good crop will sult. It may be necessary to state, that need fear a good crop on corn land, if they their eyes steadily to the 15th day of May your wheat in time to head out by the and all is safe, both as to joint worm and rust. also state that in pursuing the above plan, and a half of wheat ought to be sown to the At the high price of guano, however it is too a risk to be trying it.

JAMES FIFE.

PROPOSED PREMIUMS FOR EXPERIMENTS

To the Editor of the American Farmer:

Sir:—I have the honor to send you the following portion of the proceedings of a late meeting of the Board of Trustees of the Maryland Agricultural Society for the Eastern Shore:

"Whereas, it is of primary importance to producers of wheat and corn to ascertain definitely, if possible, the relative products of wheat propagated in the various modes now in use; also the relative effect of a ridged, and level face, as left by the wheat crop upon the succeeding crops of grass and corn; and whereas, to accomplish this object fully and satisfactorily it deemed expedient to offer such premiums as probably induce many to incur the trouble of the necessary experiments; it is the

Resolved, That this society will unite Maryland State Agricultural Society, County Societies as may be in existence

State, in offering a premium of $150 to be awarded in the autumn of 1855 for the best conducted experiments that shall exhibit the comparative results of propagating wheat—by drilling on a level surface—by drilling on a ridged surface, lengthwise the ridges—by sowing broadcast upon a level surface—and by sowing broadcast in ridges or narrow lands:

Resolved, That this Society will unite with the aforesaid societies in offering a premium of $150, to be awarded in December 1857, for such continuation of observations as will most conclusively prove the effects of the said modes of culture for wheat (that is, the effect of a flat and ridged surface) upon the crops of grass and corn which may follow.

Resolved, That this society will contribute the sum of $26, provided the aforesaid societies will contribute the balance required for the above named premiums. The said experiments to embrace not less than five acres of each mode of culture.

Note 1. In the grass crop the apparent difference if any, is all that need be noted and reported. It will be required that the relative cost of the different modes of culture shall be reported with at least proximate accuracy; also the description of soil, quantity of seed wheat per acre, date of drilling and sowing, distance between the drill tines, and observations of the appearance or condition of the crops at various stages of their growth.

It is suggested that the width of the narrow lands or ridges to be drilled, shall equal the width of the drill, which is generally, probably uniformly, 5 feet; because on such ridges the drilling can be executed with accuracy; whereas if the ridges shall be narrower, or wider than the drill, the team will have to be altered in its position on the ridges at each through, and therefore cannot be driven accurately; and drills will also be made at frequent intervals in the bottoms or middles of the furrows. Ridges of 5 feet can also be reaped with accuracy and facility by reaping machines, because the latter are generally of the same width. If the land is in sod, ridges of 5 feet in width can be more deeply and thoroughly ploughed into ridges again, for corn, than those of the ordinary width of 4 feet, and the width proposed is probably as well suited in all respects for the production of corn as any other width of what are termed *narrow lands*.

It is also suggested that where surface drains or water-furrows are necessary in land to be drilled, such furrows should be made previously to the drilling, and should be again cleared subsequently to the drilling.

By order of the Board,
M. TILGHMAN GOLDSBOROUGH.
Bellenborough, near Easton, Md., Aug. 1854.

HOW TO DESTROY GARLICK.

To the Editor of the American Farmer.

Dear Sir:—I will advert to a fact, or what is represented to be such, with regard to the destruction of garlick seed by sheep, which I have never seen in print, and for which the millers may thank me if no one else will. Being on a visit to the county of King George just before harvest, I saw a flock of sheep in a field of wheat, which was nearly ripe.—Upon inquiry I found they had been turned in for the purpose of destroying the garlick seed, which was all headed, and which they were busily engaged in doing, passing from head to head, without eating or injuring the wheat, which, by the by, was not very thick. I am told it is not an uncommon practice in some sections of country—that they prefer it to every thing else—consequently, but few heads escape them, and that the injury sustained by the wheat in passing through, is inconsiderable.

I saw several fields in King George, which were estimated to make from 20 to 25 bushels to the acre, and the same land some few years ago would not have made more than five. This has been effected by a new system of agriculture—I mean to this section on the Potomac—such as good ploughing, clover, plaster, &c., which has been introduced by some few of their more enterprising farmers.—Those lands (in the neighborhood of Dr. Francis Fitzhugh, Dr. Stuart, and D. B. Fitzhugh,) have been greatly underrated, but are advancing, and can now be purchased for about $20 per acre. At this price the investment would be a good one, for I have but little doubt that with a judicious system of improvement, the price as well as the actual value of the land could be doubled in a few years.

ALBEMARLE.

THE CROPS IN VIRGINIA.

HANOVER COUNTY, (VA.) July 15th, 1854.

To the Editor of the American Farmer.

Our farming prospects are gloomy indeed. The fly, joint-worm, and rust have almost destroyed the wheat crop in Virginia, in that region lying between tide-water and the Blue Ridge. Most of the farmers in the region mentioned, will not average more than from one fourth to a half crop, although guano and other manures were used freely last fall. What the fly left, the joint-worm injured, and what the joint-worm left, the chinch-bug and rust have nearly destroyed.

The joint-worm showed itself among us two years since, and is progressing at the rate of six to ten miles a year, in a north-easterly direction.—Where it has appeared with us no variety of soil or locality seems to be exempt from its ravages.—This year, the earliest variety of wheat I cultivate was most injured. Last year and this, about the first of April, the wheat crop looked uncommonly promising; but as the season advanced the wheat stopped growing, and stood in bundles like broom-sedge. The joint-worm bored into the stalk about the first joint, causing the joint to wrinkle and the stalk above to almost stop growing, and the head scarcely forcing itself out of the boot (as it is termed) except now and then a scattering head might be seen rising to the height of ordinary wheat. It is by attacking the lower instead of the upper joint that the great injury to the crop is effected. The Oregon pea is a complete humbug. I tried it nine or ten years since, and also several of my neighbors, and we all laid it aside as of no value. It would not grow on any poor land.

RAT-PROOF MEAT HOUSES.

To the Editor of the American Farmer.

Dear Sir:—I would like to hear from yourself, or from some of your correspondents, the best method of keeping rats and mice out of a meat house. My meat house is a frame upon a stone foundation. When I was building the foundation, the mason told me, that if I would dig a trench all around the wall, about two feet wide, and eighteen inches or two feet deep, and fill it up with stone, broken up fine, that I would not be troubled with

either rats or mice. I did so, but it had not the desired effect, for the floor is now completely undermined. A MONTGOMERY FARMER.

If our correspondent had dug the floor of his meat house down to 1 foot, filled it in with small stones to the depth of six inches, as he did the foundation, then poured tar over the stones until all the interstices between the stones had been filled up, then filled up the remaining six inches of the floor with sand, and laid a brick floor, or one with broad flat stones, his meat-house would have been impregnable to rats.—*Ed. American Farmer.*

THE WIRE GRASS.

To the Editor of the American Farmer:

I notice "A Subscriber" asks for a description of *Wire Grass*. Now as that is the most prevalent grass in this section of country, I take the liberty of sending a veri able member of the family, that it may give its own description in unmistakable language. You will please forward it; and if "A Subscriber" complains that the description is too short, he has but to set it in the ground, and it will soon lengthen itself to any *desirable* extent—perhaps much beyond. It is a mooted point among farmers with us, whether it is desirable to destroy the said grass or not. All admit that it doubles the amount of labor in preparing the ground, while land set in wire grass retains its fertility far better than land without. I am not disposed at present to take sides, but as I have a large amount of grass on my farm, and frequently find it necessary to destroy it to put in crops that will not tolerate its neighborhood, I will state, for the benefit of all whom it may concern, my most successful plan, that is, simply to plow the ground late in the fall, thereby exposing the grass roots to the frosts and freezings of winter.

Last summer I wished to put a crop of turnips in a piece of ground set in wire grass. I plowed and harrowed the ground several times, then raked it thoroughly with hand rakes to destroy the grass previous to manuring. I hauled the grass away at the rate of 25 or 30 cart loads to the acre, then worked my turnips the whole season with the hoe, but the pest was still there. The smallest joint seemed to take root and grow with renewed vigor. The same piece of ground I have now in sweet potatoes, with more wire grass than any other part of my patch. Now for the second experiment. On a piece of ground immediately adjoining the one above spoken of, I put a covering of woods-mould, last fall, preparatory for potatoes this season, and turned it in late in November. I intended to rake the ground early in the spring, but so effectually was the grass killed, that I dispensed with the raking entirely, and let the roots remain on the ground for manure, and I never kept a potato patch in order with so little trouble.

Respectfully, J. C. W.

Onancock, Accomack Co., Va., Aug. 15.

The Staggers in Sheep.—Take one quart of brandy or whiskey, and dissolve 1 oz. of camphor in it, and give 1 gill for a dose. In about two hours after taking this preparation they will get up. Care should be taken not to let them have water for 24 hours, in which time a complete cure will be effected. A farmer warrants this recipe to accomplish a perfect cure 9 times out of 10, having for several years tried it successfully.

THE MACLURA HEDGE.

We published in our last a paper from a well eminent farmer in Ohio on the growing of hedge—and notwithstanding the directions were very plain and concise, yet we cannot resist the temptation to add the following practical portion from an excellent essay, by Mr. Jas. M'Grew, of the same State, published in the Ohio Farmer:

"Great care should be taken in the selection of good seed. The most certain way of testing it is to take a tumbler and fill it two-thirds full of warm water, then put cotton enough into it to keep whatever seed you put on it just above the surface of the water; the cotton in this way will keep wet, and keep the seed moist, and yet the seed will get the air, and if kept in a warm room, it will soon vegetate. The water may have to be renewed several times during the process.

The best method of sprouting seed is as follows: Soak the seed in warm water, from thirty to forty hours, then put it in shallow boxes not more than four or five inches deep. To every bushel of seed put one half bushel of sand, (smaller quantities in proportion) then mix it thoroughly, keep it in a warm place, and wet it often as twice per day with warm water, and stir it thoroughly as often as three times a day. A more frequent stirring would be better. The seed should be put to soak about the fifteenth or twentieth of April. I do not know the exact temperature, but I should think from sixty-five to seventy degrees would be about right. Seed attended to as above described, and kept in a warm place at a proper temperature, would sprout sufficiently in ten days to put it into the ground.—It is necessary, however, to have the seed well separated before planting. Much care should be taken in the selection of a good piece of ground for the nursery or place of planting the seed. The ground should be new, fertile, and free from the seed of weeds and grass. It should be mellow, not subject to bake, and rather inclined to be wet than otherwise. Good prairie that has been broken the year previous, is undoubtedly preferable to any other ground. The ground should be well ploughed, harrowed and rolled if necessary. When the ground has been thus prepared and well pulverized, the most expeditious way of making the drills is to take a common wheat drill and take out one half of the planters. Have large points put upon those that are used in making the drills, the points or shovels upon the planters about five inches in width and the shape of the common points. The drills made in this way will be sixteen inches apart, and by weights being put upon the drag bars, the drills can be made of sufficient depth and size.—They will be regular, and it is a very expeditious manner of making the drills. The seed must then be drilled in the above described drills or furrows by hand, putting one quart to three or four square rods which would amount to from one and a quarter to one and a half bushels per acre. The covering can best be done with light steel rakes. The hands engaged in covering should walk upon the side where the seed is covered, by so doing they would draw all the earth one way in filling up the drills and covering the seed. When the planting as above described has been finished, nothing more is necessary to be done, until the plants begin to come up in sufficient numbers to indicate the situation of the drills. The space between the drills should then be hoed, after which the weeds and grass that may be in the rows, among the plants,

should be pulled out by hand. This process of cleaning the spaces between the rows, and weeding the rows, should be repeated as often as necessary, in order to keep the weeds down, and the ground loose and in a good condition. If the soil is good, the season favorable, and proper cultivation given them, they will be sufficiently large for transplanting the following spring.

TRANSPLANTING.

The process of taking them up is as follows:—A sub-soil plow should be used to cut them off; the share of the plow should be steel, quite large, and flat as possible; the depth of its running can be regulated by a wheel in front, at the end of the beam. Cutting them off in this way, the larger portion of them will remain standing in their place until they are gathered by hand. They should be cut off about eight or ten inches below the surface of the ground. They can then be gathered into bunches, and the roots covered to keep them moist, after which they can be taken out, assorted, tied into bundles of fifty or a hundred, and the tops cut off upon a block with an axe or hatchet. They are then ready for boxing and shipping. In boxing them, the boxes should not be too tight, for some air is necessary to prevent them from moulding. Small boxes and those of moderate size are best, say about eighteen or twenty inches wide, about the same depth, and three or three and a-half feet long. The plants may be packed in the most convenient way.

SETTING OF THE HEDGE.

We now come to the setting of the hedge. The ground should be thoroughly broken up to the depth of twelve or fourteen inches, the space broken at least ten feet wide, and the hedge set in the centre, would leave five feet on each side. I would here state that the law of Ohio allows the moving of fences along the public roads out into the road some six or eight feet to give an opportunity for growing the hedge at the proper place.—When a hedge is to be set along an old hedge row, the fence ought to be moved the year previous, and the ground broken up and cultivated. It would then be in a better condition to receive the hedge. After the ground has been fully prepared, it is necessary to stake off the row, and draw a line to work by. The hole for inserting the plants to be made with a pointed iron, twelve inches in length, three and a-half inches in diameter at the top, with a socket into which to insert a handle, with a pin at the top of the socket, to bear the foot upon in pressing it into the ground to make the holes—which holes should be about eight inches apart;—the plants then to be put into the holes about an inch deeper than they were in the ground in the nursery—the earth then well packed about the roots. This putting of the plants in well, is one of the most important matters about having the hedge properly started. Too much care cannot be taken in this particular. Then comes the cultivating, hoeing, plowing, &c. The soil on both sides of the hedge wants thorough cultivation, and the hedge row kept clean during the whole of the summer season. No stock should be allowed in the enclosure where the hedge is set, until after harvest, and it is better to have none until fall.—The summer's growth will by that time become hard, and it will then protect itself.

TRIMMING EACH YEAR.

The next spring, which is one year from the time the hedge was set, it must be cut off at the surface of the ground, below all the buds, just at the top of the yellow root. The root will then swell up, and put out a number of strong shoots just at the top of the ground. It then needs to be thoroughly cultivated until about the middle of June, when it should have another cutting, within two inches of the former one, and then cultivate as usual. By this process of cutting, we at once form a strong and firm base; and if this process of cultivating thoroughly, and cutting down severely, is carried out, success is certain. It is thought by some that it is necessary to cut down more than twice a year, but it is a mistake, for any one who has had any experience in matters of this kind, knows that it is necessary to let a tree form top, to a certain extent, in order to form roots and trunk, and by keeping it trimmed too closely, it will greatly paralyze its growth.—The following spring cut within three or four inches of the former cutting, and again in June, four or five inches above that, continuing the cultivation until it is four years old, and even after it has attained the size necessary to answer the purpose of a good fence, the ground along side of it should be in good condition.

I here repeat my answer to the State Board of Agriculture. The question was—"will the O-age Orange meet all the ordinary contingencies of hard winters and neglect?" My answer was this: "It will undoubtedly meet all the ordinary contingencies of hard winters, but like everything else on a farm, it ought never be required to meet with neglect."

The fourth spring it may be cut six or seven inches above the former cutting. The following June eight inches higher, after which the latter part of the summer's growth will make it sufficient to answer the purpose of a good fence. After this, trimming once a year will be sufficient, which should be done in the latter part of the summer or fall, before the wood hardens. It will be found that much less trimming is necessary after the hedge is formed. The reason is very obvious, to wit: the manner of trimming that I have described will cause each plant to spread and throw out a great number of branches to be supplied with sap, will cause the former vigorous growth to be exhausted, and will then grow more slowly.

The first cutting, which will be one year after the hedge has been set, can be done best with a pair of shears made for the purpose, which can be had of most of our hardware stores. The second cutting can be done with a short, heavy briar scythe, hung upon a strong, stiff snathe. The second year's cutting can also be done with a scythe. The best way is to walk along the row, with it upon the right hand, and cut half way, or to the centre of the row. When you get to the end of the row, turn round to the right, and come back upon the other side, and cut the other half in a similar manner. In so doing, it can be cut of an oval shape. Then by taking a large cutter, such as are used for cutting up corn—it should be very sharp—using the blade and cutter to trim the sides, and keep them in proper shape, at all times letting the lower branches extend out, so that they may become strong, so that the base may be wide. It should be at least four or five feet wide at four years old. If the side or latter shoots are trimmed as frequently, and with as much severity, as the upright shoots, they will soon lose their vigor and strength, as the natural tendency of the growth is

upward—hence the necessity of the skill and judgment to properly form the hedge. Great care should be taken to secure a close, strong and firm base. I have endeavored to be particular in describing the proper method of forming a good base, as a large portion of the hedges that have been set have failed on that account. In fact, I might say that four-fifths of all the hedges that have been set in the West, have failed on account of not having the base properly formed, consequently they have become a nuisance, thereby bringing our hedges into disrepute. The trimming of the third year can be done in the same manner as described for the second year. The fourth year's trimming will have to be done with the knife, at all times keeping the hedge in the shape of the one above represented. It should be recollected that the natural growth of trees is upward, and nature seems to have had design in this arrangement, for the sap thus flowing more freely into the upright branches, causes the lower branches to lose their former vigorous growth; they soon become shaded, and finally die and drop off.

STALLIONS.

From the Report of the Committee on Stallions, in the forthcoming Vol. of N. H. Agricultual Society.

It is difficult to decide at what period of its history to commence our account of the Stallion-colt. If we begin at his birth, we are reminded of various matters antecedent to that—to him important—epoch, that have a material influence upon his after life. To be safe let us go back to his progenitors.

As males communicate their organizations with the most obvious effect, it is by no means singular, that great stress is laid by breeders of horses and other animals upon the appearance, physical conformance and constitution of the sire. This is commendable. But farmers and breeders generally are not so fully aware as they should be, that various items, other than color, style and figure, are transmissible from sire to son. These are contracted feet, founder, spavin, ring-bone, curb, sand-cracks, diseases of the eye, and of the respiratory organs, as broken-wind, roaring, wind-sucking, &c. We are as fully persuaded, that these affections and diseases, are hereditarily transmissible, as that color, action or temper may be so transmitted.

At the late National Exhibition of Horses, held at Springfield, Mass., the writer was Chairman of the Committee on GELDINGS, in which class were 109 entries. Many of the finest horses subjected to their examination were found to be affected with ring-bone and other diseases of the leg and foot; and the reply to the questions of the Committee on this point, invariably was—"*he was folded so.*"

In this view of the case, it becomes breeders to look well to it, that the selected Stallion have no hereditary tendency to disease, or defect capable of being transmitted to the offspring; for "like begets like," and as surely as a noble steed can mark his offspring with his good qualities, so certainly can he hand down, also, his imperfections of temper and formation.

If men are too often careless in the selection of a Stallion for purposes of breeding, what shall we say of their choice of a mare? Any old, decrepid, diseased, purblind she-horse, that can be procured, or that is found fit for no other purpose, is considered good enough to breed from! And many such an old, good-for-nothing-but-the-compost-heap creature, is kept by farmers and others for the special and only purpose. Knowing this, one ceases to wonder, that the country is stocked with such a superabundant supply of miserable, early broken-down, and diseased horses,—insomuch, that he who now-a-days undertakes to buy a horse on his own judgment, unless he goes with his eyes peeled, and "had his eye-teeth cut" at an early period of his existence, will, ordinarily, find himself sold remarkably cheap.

"Any one," says Mr. Castley, an eminent English Veterinary Surgeon, "who, during the last twenty or twenty-five years, has had frequent opportunities of visiting some of our great horse-fairs, in the north of England, must be struck with the sad falling-off there is everywhere to be remarked, in the quality of the one-half, and three-part bred horses, exhibited for sale. The farmers when taxed with this, complain that breeding horses, do not sufficiently repay them; and yet we find large sums of money always given at fairs, for any horses that *are really good*. The truth is that farmers do not now-a-days, breed horses so generally good, as they used to do; and this is owing to the *inferior quality of the mares*, which they commonly employ in breeding."

Some of the best mares, it would appear, are now purchased by gentlemen for saddle horses,—it being now as it was formerly as fashionable to use mares, as geldings, for riding purposes. A number of the finest three-part bred mares, also, are imported to the Continent.

These facts account for the deterioration of the horses, in ordinary use in England, and most of them are in force here. Many an old broken-down creature is purchased, or kept for a breeder, because she is *fit for nothing else!* Fit for nothing else? If fit for a breeder, (unless injured by some accident,) she is fit for anything else.

Sire and dam being judiciously selected, our next care is with the unborn colt,—the fœtus. "Our next *care*," we say, for the young courser may be starved, or otherwise maltreated, as effectually before, as after birth. The mare when with foal, should be well but not too plentifully fed,—should not be overworked, nor yet allowed to lack exercise, and should never be subjected to such rough usage, as it is but too common among farm-hands and stable-boys,—who are ever over-free with the toes of their cow-hide boots. Discharge such at once, after having treated them to "a little of the same," to see how they like it; for no one taken down with the accursed disease of "Cruelty to Animals," was ever radically cured of it.

It is well to offer the mare, immediately, and, for a few days after parturition, a drink of luke-warm water with corn or oat-meal, or shorts mixed therein. She should then be permitted to run out to grass for a month, at least, to recover strength; though the common custom, we know, is to put them in harness within a fortnight from foaling.

Our young Stallion being now fairly in the world, and moving upon it on his own legs, his first experience of life is stirring. The old farmer has an errand at a neighboring village, distant some six or seven miles. "Put Bessey to the old chaise," says he; and drives off with commendable moderation—little Morgan trotting in company; but, business being concluded at the store, rain threatens, or other cause induces a hasty return; and we see Bessey doing all she knows how to get home

in season, and little Morgan doing *a little more*—to keep up. His long, lank legs get soon tired; his footing is unsure; his bellows gets out of order; he is over-heated; he lays the foundation of troubles, that are perfected in the full-grown horse.

For the first six months of his life, the chief food of the foal is "mother's milk,"—although he will pick up now and then, a little else with all the pride of incipient horsehood. If the mare be insufficiently fed during this period, or over-worked, (which lessens her yield of milk,) the foal is in either case, half starved; and a half-starved colt is almost never well made, when he arrives at maturity. He is always *a weed*. He should be well fed from, and before the time of his birth.

At one year old, though the colt has by no means attained his fulness of form, it may be decided whether or not to retain him as a Stallion. If, at this age, however many good points he may possess, *indications* of contracted feet, founder, or any other diseases heretofore mentioned as transmissible, be seen, geld him at once.—He ought not to serve as a Stallion.

At three years old, a horse may be allowed very moderate service. Over-taxation of his powers at this age—or at any age for that matter—is short-sighted policy for the owner. As a four year old, he will be more matured and full of vigor, and at five, he is still more able to do service. It is a too common fault—this over-taxation of a Stallion's powers; and it tells both on himself and on his get. The English limit for a prize horse, that "travels his district," is sixty mares in a season; but eighty are often covered, without prejudice. What shall we say of the horse-owners, who boast of having had double these numbers served in a season by their horse—sometimes three in a day!

A notable instance of the evils of overtaxing a horse's procreative powers occurred in England, many years ago, in the case of a celebrated stud belonging to H. R. H., the Prince of Wales. The groom was permitted to pocket a half-guinea fee from all comers; and it may be well guessed, that no applicants were refused. The consequences were serious to the horse, and to very many of his get. Another instance is within our knowledge. A Stallion of some repute in New England, was allowed to serve one hundred and forty-three mares in a season, and was then sold to go to Virginia. Most of his colts of that year proved to be miserable creatures; and in Virginia, in the following, he himself proved *perfectly impotent*.

The small size of very many,—I may say of a large majority—of our horses, is an evil that is great, and growing (like a cow's tail—downwards.) This may be attributed to a poor selection of breeding-mares, the scant feeding of the dam, before and after foaling—thus half starving the foal; bad usage of colts by stinted food, or unsheltered, exposure to cold storms, and the general over taxation of the powers of stallions.

We are well aware that some persons who pass for wise men in matters of horse-flesh, contend that this smallness of size is no objection to a horse, and cite for proof, the fact that some of the fleetest Arabian coursers are but 14½ hands high. Admit that these Arabian lightning streaks are of so small a size, and what does it prove? Nothing. When the American's horse has nothing to do, but to bear a hirsute and pinguid vagabond over sand deserts, on hen-roost-robbing expeditions, 14½ hands will be high enough (until the rider rivals Haman.) But so long as the farmer has sward-land to plow, cord wood to draw, and a stout wife, and a half-score of stalwart sons and buxom daughters to be driven to meeting, or to the State Fair;—so long as our city carriages are ponderous, and trucks weighty;—so long shall we need a little more height in our horses, and that not all in the legs.

The subject of increasing the size of our horses will more properly be discussed by the Committe on Breeding Mares; for it is with the mare that the improvement must commence. To subject small mares to large sized stallions will not effect the desired change. It will give us, as it did to the Yorkshire farmers, who tried a similar experiment, "a race of long-legged, large-boned, small-chested, worthless animals." Such, also, was the ill effect, said our lost friend J. S. Skinner, of the cross by a large "Cleveland Bay" Stallion, imported and sent to Carroll's Manor, Maryland.

"The proper method," says Professor Cline, of London, "of improving the form of animals consists in selecting *a well formed female, proportionably larger than the male*. The improvement depends on this principle, that the power of the female to supply her offspring with nourishment, is in proportion to her size, and to the power of nourishing herself from the excellence of her own constitution."

"The size of the fœtus (he continues) is generally in proportion to that of the male parent, and therefore, when the female parent is disproportionately small, the quantity of nourishment is insufficient, and her offspring has all the disproportion of a starveling."

"To produce the most perfect formed animal, (adds the same high authority,) abundant nourishment is necessary *from the earliest period of its existence*, until its growth is complete." This sustains the view that we have herein before advanced.

We here conclude the Report on Stallions; not that we have said all that we have to say on the subject; but because we wish what we write to be read; and long stories find few listeners. At some future time, another opportunity may be afforded us of discussing the subject further.

For the Committee,
WILLIAM S. KING, *Chairman*.

THE DAIRY.

The following remarks, on subjects of much interest in the domestic economy of the farm, we copy from the "Wool Grower and Stock Register." These matters have received much attention in the state of New York, and the hints from this able writer, will no doubt be found of much practical benefit to our housewives who have this department in charge:

CHEESE-MAKING.—Though it is possible to make excellent cheese without the slightest knowledge of the *rationale* of the art, it is impossible to have any intelligent idea of the operation of the various processes employed, without considerable acquaintance with chemistry; indeed, butter or cheese-making involves more chemical principles than any other art in rural economy. Fresh milk on being allowed to stand and cool, throws up cream to the surface; when kept at a warm temperature a short time longer, it becomes clotted, and the liquid or whey filtered from it has a sweet taste. All have observed these changes, but few have any intelligent idea of the laws which govern them. Why does cream rise to the surface? Why does the casein,

or curd, which was previously dissolved in the milk, become insoluble? And why is the whey sweet?—Chemistry informs us that the cream consists of an aggregation of infinitessimally small oily globules, encased with a film of casein; they are held in emulsion and rise to the surface, simply because they are specifically lighter than the milk. Casein, or curd, is insoluble in water, but is soluble in water containing a free alkali.—Fresh milk contains free soda, and hence the casein is held in solution; but if you add a little vinegar or other acid, it unites with the soda, forming a neutral salt (lactate of soda,) and the casein is, of course, left in an insoluble state, in other words is precipitated. The whey is sweet simply from containing sugar—usually termed "sugar of milk," and corresponding to the sugar of grapes and other fruit.

In milk, therefore, we have water and free soda, casein, butter, and sugar of milk. When this compound is allowed to stand at a moderate temperature it becomes sour, in consequence of the conversion of the sugar into lactic acid, through the decomposing influence of the nitrogenous substance casein. Brewers' yeast is a nitrogenous substance in a state of decomposition, and converts a solution of sugar not into lactic acid, but into alcohol; but if the yeast be triturated till its organic structure is destroyed, it loses the power of inducing the vinous fermentation, and converts the sugar into lactic acid. All nitrogenous substances possess the power of disturbing the elements of sugar, but the resultant compounds differ materially according to the kind and character of the nitrogenous substance used, and the access or expulsion of atmospheric air. Casein, as we have said, converts the sugar in milk into lactic acid; there are many other substances which accelerate this change. Practical dairymen, however, are now pretty unanimously of the opinion that *rennet*, or the prepared stomach of the calf, is the best substance to use for this purpose. There is no mystery in its action; the same results are observable in a variety of other compounds, and are clearly traceable to the same laws. Brewers' yeast is a soluble nitrogenous compound, in a certain state of decomposition, and converts sugar into alcohol and carbonic acid. Rennet is a nitrogenous soluble substance, in a different state of decomposition, and converts sugar into lactic acid; and it accomplishes this transformation more expeditiously in a disturbed state, than casein, simply because it is in a state of decomposition, having the power of disturbing the elements; for it is a well known law, that substances have their component elements of other bodies with which they are brought in immediate contact.

The object, therefore, of adding rennet to milk in cheese-making, is simply to convert the sugar of the milk into lactic acid. It is well known that fermentation will not proceed at a low or at a high temperature; from 50° to 130° may be considered the range; at from 90° to 100° it proceeds with great rapidity. Practice proves that the temperature of the milk should be about 90° when the rennet is added; if lower than this, the formation of lactic proceeds slowly and the cheese is long in coming; if higher, lactic acid is formed too rapidly and the curd is tough, in fact approaching to the character of curd precipitated by the addition of an acid, rather than to that produced by the gradual formation of the acid from the milk itself, and which unites with the soda in its nascent state, or the instant it is formed, without acting on the curd at all, or giving any acidity to the milk.

Various methods are employed to raise the milk to the proper temperature; those are best which heat *all* the milk gradually; but in a small dairy it is generally done by putting a tin of milk in hot water, and when it is about 150° pouring it into the cheese tub, heating another portion, and so on, till the desired temperature is attained. The freshest milk should be taken for this purpose; milk that has been kept some time will be likely to curdle. Care should be taken not to heat the portion of milk placed in the hot water to too high a temperature, or the butter it contains will run together in an oily mass, and much of it will be pressed out afterwards when submitted to the necessary pressure. Skim cheese, or cheese made from milk from which a portion of the cream has been taken for the purpose of making butter, should be put together at a lower temperature than when all the butter is in. Too much rennet has an injurious effect, not only in causing the curd to come too soon, but in inducing the cheese to bulge in the store room. At a proper temperature, with the right quantity of good rennet, the curd is gradually precipitated in light, sweet and tender flecks. As a general thing, we believe American dairymen add the rennet to the milk at a lower temperature than the English, and hence the cheese is tenderer and softer, and has a more buttery look than the English. We have seen American cheese sell for one cent a pound more in an English market, than the best Cheshire, and simply for this very reason. Of the practice of scalding the curd we have not now space to write: we are inclined to think the process injurious rather than beneficial.

Great care is necessary is pressing all the whey out of the cheese; for this purpose it should be broken up as fine as possible, with a curd breaker, in the cheese tub, and then be well pressed in a hand press, and afterwards be broken up quite fine and salted. It is very important that as much of the whey as possible should be pressed out of the curd previous to salting, as the preservation of the cheese depends on all the liquid it contains being *saturated* with salt; so that the less whey it contains the less salt will be needed. When placed under the press it will need to be turned, skewered and covered with clean, dry cloths every day or two, and kept under pressure till the cheese no longer wets the cloth. The cheese should be kept in a cool, moist place for a few days, and covered with salt previous to its removal to the store room, where it must at first be turned or inverted every day, or the side next the floor will mould. Let the room be dry, cool, dark, and well ventilated.

A FEW WORDS ON BUTTER-MAKING.—The production of Butter involves so many intricate questions of organic chemistry—so many nice physiological considerations—is influenced so much by climate, by soil, by food, and the breed, age and condition of the cows, that an essay might easily be written on the subject, while it is exceedingly difficult to say anything interesting in a single short article.

Milk contains curd, sugar of milk, and butter. The latter exists in the form of small oily globules, encased by films of curd. These globules are specifically lighter than water, so that when the milk is allowed to stand, they gradually rise to the surface, and constitute *cream*. When the cream is

kept at a moderate temperature, the sugar under the influence of the curd and air, is transformed into lactic acid, according to well known chemical principles.

The object of churning is to separate the butter from the curd by which it is surrounded.—This is accomplished simply by agitating the cream and *breaking the films of curd* setting the oil free, which run together and forms lumps of butter. Cream from the formation of lactic acid is generally sour before churning, and if not, always becomes so during the operation. The lactic acid acts on the films of curd, and renders them more easily broken. During the process, the cream increases in temperature from 50 to 100°. The best temperature at which to churn the cream is a disputed point. It appears, however to be well established by numerous experiments, that 55° when the cream is put in the churn, and about 65° when the butter comes, affords the best result. If higher than this, the butter is white and soft; if lower, the whole of the butter is not separated; and the labor of churning is much increased. The butter should come in from 20 to 40 minutes. If obtained quicker, it is generally at the expense of color, flavor and hardness. After the cream is "broke," it should be churned slowly till the butter is gathered.

Some good butter-makers do not wash the butter at all, merely working out the buttermilk by pressure. Where good, cool, spring-water can be obtained, we should always prefer to thoroughly wash the butter, taking great pains to remove all the buttermilk. Butter generally contains about 15 per cent. of water, curd, &c.—it is important for the preservation of butter that as much of this as possible should be removed. The quantity of salt required, depends upon the quantity of water in the butter. The water should be *saturated* with salt: hence, the less water the butter contains, the less salt will be required for its perfect preservation. When butter is sold fresh, 15 or 20 per cent. of water is not a material objection; but when the poor city folks have to buy so much water at 15 or 25 cents per lb., do let them have it clean and fresh! Give them water, and keep the buttermilk for the hogs at home!

We need hardly say that the most scrupulous cleanliness is required in all the operations of butter-making. Cream is more easily tainted by noxious gases than almost any other substance. Hence, not only must the dairy or cellar be itself clean, but all fumes from the barn-yard or out-buildings be carefully excluded.

DESTRUCTION OF CROPS BY GRASSHOPPERS.

Proposed Remedy.—The ravages committed by Grasshoppers this season in Alleghany county, Md. will prove a serious loss to the farmers. Col. Thruston, in a communication to the Cumberland Miners' Journal, says:

I first observed them this year on the 5th of May, going into my timothy meadow. I was startled by observing clouds of them about one eighth of an inch long. From the experience of the two past seasons, I at once anticipated very serious evil from their appearance at so early a season in such increased numbers. In a very few days I discovered that the timothy crop would be destroyed. Having eaten up all my crop, (about 100 acres) they attacked the wheat in June, having not one stalk in a 30 acre field that they did not strip of its leaves, cutting off one-third of the heads, besides injuring the grain in most others.

I hastened to cut my wheat, as soon as it would bear it, when I found them in the oats, and before they would bear cutting, two thirds of the crop was destroyed. As soon as the oats were cut, they attacked two of my fields of corn in such numbers that I abandoned them at once. There is not a stalk in either of them that is not eaten by them so as to destroy the product. Everything eatable on the place is destroyed—pastures, potatoes, cabbages, carrots, parsnips, pea vines, fruit trees, are stripped of their leaves. The peach being the only one that has escaped.

The grasshopper is not the annual one which is familiar to all. It is not so long, but thicker. It has not the same flight, but skips, its longest jump not exceeding ten feet. At first, early in May, it appears about an eighth of an inch in length; growing rapidly on the tender grass, it increases in its destructive power until about the 1st of July, when it obtains its full growth. Copulation takes place, and very soon after, the eggs may be seen arranged on the back of the female, (distinguished from the male by its lighter color and greater size) in rows, being retained there until they are prepared to be deposited.—This is done on the roots of grass, or old corn stalks, just under the surface, to be hatched with the return of spring. About the 1st of August they begin to die, and by the 29th all are gone. —They seem to be omnivorous—not only devouring everything of vegetable life, but dead animals, all other insects, and each other.

Now the remedy which I propose to myself, and which I communicate for the benefit of others, is to burn out my meadows in the spring, when I can find material enough to burn, which from past experience I know will destroy the eggs, and then to pitch my crops so as to plough as much land as possible. That is, to put in wheat, corn, oats, barley and potatoes in contiguous fields. If that fails, then to plough up all the grass on my farm. For the grasshopper can only subsist on tender grass for the first month of its life. It does not appear in any other than grass land.

USES OF LIME.

Quicklime should never be used in combination with animal manures. When in contact with them, it sets the ammonia free, and impairs, nay, destroys the efficacy of such manures. *Mild lime*, or lime that has re-absorbed the carbonic acid, which had been driven off in the process of burning—*marls, shell, marl* and *shell-sand*, being carbonates, do not exert the baneful influence of quicklime, and therefore may, very advantageously be used, in connection with organic manures. *Marls*, in every form, may also be used with barn-yard and stable manures, or any other kind containing ammoniacal compounds, as the lime in them, being carbonate, cannot exert an injurious influence upon them—*Marl* might even be used with guano, the most concentrated of all animal manures, and no ill effects would flow from its application, whereas, if fresh lime were used all the nitrogenous parts of the guano would be driven off and lost to vegetatation, while nothing would be left but the mineral portions.

Persons having marl deposits, could not make a more profitable disposition of their marl, than by covering their barn-yards and stable floors with it, to act as an absorbent, and retainer of the liquid manures of their stock.

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From every indication the next meeting of this noble institution bids fair to excel all its predecessors; we therefore remind its members that it is expected that every man will do his duty—his full duty—that all will feel themselves bound not only to come themselves, but bring their families and use their influence among their neighbors and friends to induce them to come also. It is further expected that every member of the association will bring specimens of the products of his plantation, farm, garden and orchard, and each vie with the other in contributing to the exhibition.

As no institution can prosper without the smiles of the ladies, it is hoped that they will be at the Fair to bless the rougher sex by their smiles, and fill, by the productions of their fair hands, the Hall that has been allotted to their government.

☞Those intending to exhibit Stock will bear in mind that the drawing for the choice of stalls will take place on the 15th September inst. and will continue until all are supplied. ☞Exhibitors in their application for stalls and pens, are particularly requested to designate the kind of animal, breed, age, and what premium entered for, so that the entries may be made in the books at once, and thus save time.

☞All stock for competition must be entered on the books of the Society, on or before Monday, the 2d October, (day before the opening,) otherwise the Society will not be responsible for their being seen by the Judges.

☞The gentlemen selected as *judges* are earnestly appealed to, to be at their posts on the first day of the Exhibition, prepared for the important duties which are required of them. The names of the judges will be found in the list of premiums, heretofore published.

THE DROUGHT—THE CROPS.—We think we are warranted in saying, that the drought which has been experienced during this summer has seldom if ever been exceeded, in point of its universality throughout the United States. We believe it has extended at least from Maine to Georgia, from North to South, and East to West—the four great sections of the country have suffered from its effects, and the most disastrous consequences we fear will result in many sections from the partial or total failure of the corn crop, that great staple of this country. We could fill our entire sheet, did we attempt to particularize, which we deem unnecessary. In the Southern counties of this State, the failure of the corn crop will be nearly entire.

A correspondent of the Alexandria Gazette says that he has lately been through the counties of Prince George's, Charles and St. Mary's in Maryland—as well as through some of the neighboring counties in Virginia, and he never saw before such a poor prospect for corn. There are some few favored spots where a little corn will be made; but as a general thing, the crop will be nearly a total failure. The streams are all very low, and the cattle will suffer from the want of good pastures. On the Easthern Shore, the accounts are not much better. In the upper district of the State it is also intense, and the suffering and loss will be very great. In the West, the question as to the prospects for the Hog crop, is one exciting interest at the present time, in connexion with the shortness of the corn crop—and it will also have an important bearing on the breeders and fatteners of cattle. In New York, the farmers are selling their cattle for want of grass. Cows, which commanded $40 per head last spring, are selling at Pultney, New York, for $12, and Sheep in proportion. At Rochester, at this writing, it has been 54 days since rain. In Illinois, it has been more than two months since rain has fallen, saving a slight shower on the 20th of June. In Ohio, we learn from the Ohio Farmer, the editor of which says he has excellent opportunities to inform himself, and "so far as the *corn* region is concerned, that staple crop will not average over one third of the usual yield. The Sciota Valley has not heretofore failed to produce a large corn crop, but this season some of the best portions of it will yield scarcely any at all. This failure will affect the cattle crop in the same proportion. From present appearances the number of cattle fed will not be over one-third of that of last year. When it is recollected that Ohio usually furnishes over one-half that are slaughtered in the Eastern cities, this failure can be appreciated.—The hog crop will fare better, as the mast is very large. The oaks are bending with acorns. The pastures are burned up, and the streams are dry, and many herds of cattle are falling off in flesh. The only two full crops this season are hay and oats, the other grains and root crops are very short. But there is no fear of famine."

On Saturday, the 27th ult. we had a fine rain in this vicinity, the first of any consequence for two months, but it was too late materially to aid the corn.

VALUABLE PROPERTY IN VIRGINIA FOR SALE.—One of the finest estates in the Valley of Virginia, is offered for sale in this No. of the Farmer, by James N. Ranson, Esq. of Lexington, Va.—We are told that the reality exceeds the description given; and it is believed that any one wanting an estate of the kind, cannot on inspection fail to be satisfied with this.

In addition to the above mentioned tract, it will be seen that several others are offered in our advertising columns, and we have no doubt great bargains could be had by enterprising men from the North, who would, by improving these lands, double their value in a few years.

Reduction in the Price of Guano.

Just as we were on the eve of putting our last form to press, we received the following from the Agents of the Peruvian Government in this city, by which it will be seen that a deduction has been made in the price of Peruvian Guano. This will be good news to the Farmers, and no doubt will be the means of a considerable increase in the demand for it:

PERUVIAN GUANO.—In consequence of the well known causes which have lately prejudiced and continue to prejudice the farming interest, His Excellency, the Envoy Extraordinary and Minister Plenipotentiary of Peru, is desirous, as far as it is in his power, to place the Peruvian Guano before the consumers in such a manner as will enable them to obtain it on terms better adapted to meet the difficulties of the season, and has been pleased to direct orders to the undersigned to sell the Guano for the present as follows:

For 1 to 5 tons	$53,	cash.
" 6 to 10 "	$52,	"
" 11 to 20 "	$51,	"
" 21 to 25 "	$50,	"
" 26 to 30 "	$50,	30 days, or discount for the same time.
" 31 to 100 "	$50,	two months, or discount for the same time.
" 101 to 200 "	$50,	three months or discount for the same time.

" 201 tons and upwards $50, four months or discount for the same time.

The Agents are prepared to make deliveries at their deposits in the different ports of the United States through orders given by them in this city.

F. BARREDA & BROTHER.

Baltimore, September 1st, 1854.

☞ The conductor of the "*Farmer*" will continue his Agency for the purchase of Peruvian and Mexican Guano for the farmers. His supplies are taken direct from the ships or warehouses of the Peruvian Government Agents in this city, and may be therefore relied on. He sells for $1 in advance on the lowest government price ($50,) for any amount, under 26 tons—for quantities over that amount, special contracts will be made, which will be of the most liberal character. He solicits the orders of the farmers and planters throughout the U. States. ☞ The above is for the long ton—and the change has been made since that portion of our paper was put to press containing our advertisement.

FREDERICK COUNTY CATTLE SHOW.—The second Cattle Show and Agricultural Fair of our Frederick county neighbors, will take place on the 11th, 12th and 13th days of October next. The Show grounds lie near the city of Frederick.

THE GALE WHEAT.—This wheat is a beautiful early white smooth head variety, ripening about the same time with the Mediterranean—is very prolific, when sown thick enough, the grain being large, requires more seed than other kinds; it is not affected by the rust. The straw is short, firm and strong, and stands up better under all circumstances, than most other varieties. The grain is plump and bright—for any but low grounds, it is probably not surpassed by any wheat sown in the State. The principal drawback to it, is, that on rich lands it it is liable to be affected by severe freezings than some other varieties. The price for it, prepared for seed, is $2.50 per bushel.

VA. AND N. C. UNION SOCIETY.—We learn from a gentleman present on the occasion, that at a meeting held at Petersburg, Va. by this Society, J. C. Bruce, Esq. the President, delivered one of the ablest addresses he ever listened to, and that the officers are making preparations for a brilliant Cattle Show the last week in October. We are requested to state, that owners of stock and manufacturers of Agricultural implements, machinery, &c. who wish to be present at the exhibition, can correspond on the subject with Messrs. Chas. Friend, E. W. Friend, and N. Meade, of Petersburg, who will give every facility to those wishing to exhibit. There will be a fine field here for exhibition and the sale of everything suitable for farmers and planters' use, the exhibition being held in the midst of a country more thoroughly awakened to the importance of agricultural improvement, and more actively engaged in it, than any other in the State.

VIRGINIA STATE AGRICULTURAL SOCIETY.—The Show of the State Society comes off the week following that at Petersburg, and will be held at Richmond. There is a rail-road from place to place, so that visitors and exhibitors will have an opportunity of attending both. We learn from the Virginia papers that the preparations for the next Exhibition are rapidly advancing, and a more interesting one than even that of last year is confidently anticipated. Richmond has redeemed her pledge of five thousand dollars, and has voted a full police force, and five thousand dollars to refit the grounds. The arrangements will be much more perfect than they were last fall, and room will be allowed for a course for exhibiting horses in harness and under saddle.

AGRICULTURAL COLLEGE AND EXPERIMENTAL FARM.—We have strong reasons to anticipate, that the project for the establishment of this institution, under the auspicies of our State Agricultural Society, which has for some time past been in contemplation, is in a fair train for being successfully accomplished. All the preliminary arrangements are now made, and it only requires a little effort on the part of the officers of the Society, and those gentlemen whom they have called to their aid, to have it carried into effect at an early day. We refer the reader to the proceedings of the Executive Committee on another page.

IMPROVEMENT IN N. CAROLINA.—A subscriber of Pitt Co., writes us that when he removed to his present farm, some 8 years ago, on account of the health of his family, he was no farmer, and his land was so poor that it would not produce half a bushel of corn on a thousand corn hills—and his neighbors prophesied he would starve on it—but this year he calculates on making 300 bbls., and the growth of his cotton is very good—this improvement, he says, has been effected without purchasing manure, and adds, "and I give all credit to you and your paper, for the part man can do."

IVERSON'S RESCUE GRASS.—As this grass seed should be sown this month, those who have ordered and paid for the same, should give immediate directions how it is to be forwarded to them.

CORRECTION.—In the notice of Hussey's Reaper, by Carter Braxton, Esq., in our last, Mr. B. is said to have averaged 1⅛ bushels to the shock, from 1940 shocks—it should have read at least "3⅛" bushels.

MEETING OF THE EXECUTIVE COMMITTEE OF THE MARYLAND STATE AGRICULTURAL SOCIETY AUGUST 2, 1854.

The meeting was called to order by the president, C. B. Calvert, Esq.

Mr. R. McHenry, of Harford, submitted the following heading for the subscription lists for the Agricultural College, to be erected under the auspices of the Society:

We, whose names are hereto appended, severally agree to take and pledge ourselves to pay, in such instalments as may be determined at a meeting of the subscribers, to be called by the President of the Maryland State Agricultural Society, the number of shares of the stock of said society placed opposite our names respectively—it being understood that each share of stock when full paid shall amount to $25, and that the amount paid up on said stock shall be applied to the purchase and outfit of an experimental farm (which shall embrace commodious accommodations for the annual exhibitions of the Agricultural Society,) within ten miles of the city of Baltimore, and in the erection thereon and endowment of an Agricultural College, in which the holder or combined holders of not less than 40 shares of stock shall be entitled to be represented always by a pupil free of all charges for instruction, according to regulations hereafter to be framed; provided that the Maryland State Agricultural Society shall at its annual meeting so amend its constitution as to vest the control of its property and the government of said College, in officers to be chosen exclusively by the stockholders; and provided further, that before this subscription shall bind any of the undersigned, at least 4,000 shares of stock shall be bona fide subscribed for.

Mr. McHenry also submitted the following, which was unanimously adopted:

Resolved, That the citizens of Baltimore and the Agriculturists of Maryland be invited to attend a meeting to be held at a place in the city of Baltimore hereafter to be designated, on Tuesday evening, the 3d October next, for the purpose of taking measures to promote the establishment of an Experimental Farm and Agricultural College for the State of Maryland, and to hear addresses which will be delivered by the friends of the project.

The Secretary was directed to advertise for proposals for hay, straw, grain, &c., for the Cattle Show, to be received up to the 23d inst.

The thanks of the Committee were tendered to Mr. R. McHenry for the preparation of the papers necessary for the furtherance of the objects of the Society, in regard to the Agricultural College.

Mr. J. T. Earle offered the following, which was read, and after the subject was fully canvassed by the members present, from the various quarters of the state, was adopted without a dissenting voice, viz:

Whereas, Statements are daily made in the public prints, which give false impressions of the wheat crop of the State, to the great prejudice of the farming community; and whereas, as the guardian of this interest, it becomes our duty to place before the farmer the most reliable information in our reach, to guide him in the sale of his crops.

Therefore, Resolved, As the opinion of this Society, after a most careful comparison of the views of its members, that the wheat crop of Maryland, quality considered, does not exceed, if it comes up to, an average crop.

Mr. M'Henry, of Harford, offered the following resolution, which was read and unanimously adopted.

Resolved, That 500 copies of the heading for subscriptions to the Agricultural College as just adopted, be printed—10 to be furnished to each officer of the society, and the rest placed in the hands of the Treasurer.

Resolved, That each officer and member of the Society is earnestly entreated to use his utmost exertions in obtaining subscriptions to the proposed Agricultural Institution previously to the next annual meeting.

Mr. M'Henry also offered the following, which was read and concurred in:

Resolved, That the Board of Managers hereby recommend the Society at its next meeting to adopt amendments to its Constitution, in accordance with the plan for an Agricultural College and Experimental farm, which has been sanctioned at this meeting.

The President called the attention of the Committee to the present state of the show grounds, and stated that considerable repairs were necessary. Some conversation took place as to the propriety of requesting the Trustees of the stockholders in the show grounds, to call in the balance due on each share as originally subscribed, for the purpose of improving the grounds with such permanent improvements as will enure to the benefit of the owners of stock after the Society's time has expired. Dr. Wharton finally offered the following, which being seconded by Mr. Earle, was adopted unanimously:

Resolved, That in the opinion of this society the stockholders would act as ever, in a spirit of liberality, and as in accordance with the understanding of each and every subscriber at the time of subscribing, by paying up the balance due on each share, to be applied to the improvement of the grounds, under the direction of the Trustees, or surrendering to this society the grounds upon being refunded the whole amount expended, with interest from the date of the expenditure, and that they be respectfully requested to do one or the other.

Resolved, That the above be forwarded by the President to each stockholder, apprising him of the action of the society, and requesting him to respond to the same.

Messrs. Calvert and Earle were appointed a committee upon the subject of the Orator for the annual meeting.

On motion of Mr. Earle, Martin Goldsborough, Esq., was appointed Chief Marshal for the next exhibition, and his salary fixed at $200.

Mr. Earle moved that the Judges at the next exhibition be required to state in their reports that they had read the rules and regulations for their government, prior to entering on the duties of their appointment.

On motion, the committee adjourned to meet again on the 23d August, at 10 o'clock, A. M.

Test,—SAM'L SANDS, Secretary.

Wednesday, August 23d, 1854.—At an adjourned meeting of the Executive Committe held this day the Secretary presented the answers from several stockholders in the Show Grounds of the Society with but two exceptions responding favorably

the call of the Society to pay up the balance originally subscribed on each share of stock, and in some cases, offering to dispose of the stock to the Society on receiving the original amount paid on it, with interest. A response not having been received from a majority of the shareholders, Dr. Wharton offered the following, which was read and adopted:

Whereas, answers from a majority of the Stockholders to the proposition made by this Society, at its last meeting to the Stockholders, have not been received. Therefore

Resolved, that

be appointed to call personally upon each of said Stockholders, and solicit their approbation of one of the propositions suggested in the circulars that will be handed to them by the aforesaid Agent.

[The propositions are: 1st. To pay up the balance due on each share, for the improvement of the grounds—2d. To sell to the Society, the stock, on payment of the original cost with interest—or, 3d, to pay to the Society the balance due on each share, on the relinquishment of the grounds to the shareholders—the sum thus received by the Society, to be expended in the removal of the buildings and fitting up elsewhere, on grounds contemplated to be procured for an Experimental Farm and Agricultural College, to be located near the city.]

The following gentlemen were announced by the Chairman, as the committee to make arrangements, for a public meeting in favor of the promotion of an Agricultural College, to be held on Wednesday evening, 3d October, at 7½ oclock, P. M. viz: Messrs. John C. Brune, Thos. Swann, J. H. M'Henry, J. O. Wharton and Wm. W. Glenn.

After the transaction of some other business, in relation to contracts for hay, straw and feed, and the renting of the refreshment stands, the meeting adjourned. Test, SAML. SANDS, *Secr'y*.

EDUCATION OF FARMERS.—The following letter, from one of the most eminent of Kentucky's sons, is deemed worthy of being presented in our pages. It is upon a subject that is attracting the attention of the best and wisest men of our country, and the evidences are daily multiplying that the day is not far distant when the agricultural education of the farmers of the United States will form a leading feature in the minds of the philanthropists, patriots and statesmen of our country:

WINCHESTER, (Ky.) April 16.

Dear Sir:—I had the pleasure to receive from you a communication, announcing your intention of publishing a paper devoted to agriculture and the kindred arts of rural economy.

Sir, you have a noble theatre for such an effort. A country possessing so many natural advantages; where so large a proportion of the people are engaged in that occupation; where so much is yet to be done for the soil and for the cultivator; such an attempt as yours will no doubt be received with favor by an intelligent community.

The natural fertility of our soil has hitherto made our farmers careless of its preservation.—But the time has come, when we must apply to this great subject new modes of action. Plants, like animals, must be fed; we must find out what portion of the food of plants is wanting, that we may know what kind of manure to give them.—But sir, any plan to improve agriculture, that looks merely to the farm, goes only half way; the cultivator must be, also, improved; art and science must shake hands at the plow.

When it shall be thought necessary that the farmer should be as well educated as the professional man; when our legislature shall become so enlightened as to build up an agricultural department to our government, and furnish us with agricultural chemists and geological professors, to develop the treasures of our earth—then our blessed land will teem with its highest products, guarded by an intelligence that will keep it safe. It is needful that the American farmers should be more enlightened than any in the world, because they have devolved on them greater responsibilities.

In addition to the duty of preserving their land, and making it bloom with abundance and beauty, they have imposed on them the higher duty to preserve American liberty.

Every scheme, therefore, for the improvement of the land, should be constantly connected with the idea of improving the cultivator.

Schools and plows, farming and legislation, must become associated in our minds, as indispensible to the support of each other.

All the considerations and branches of learning properly connected with the leading idea, will make an agricultural newspaper not only the most useful, but the most interesting to us, of all the journals of the time. I trust, sir, that you will have success in your laudable enterprise. I will endeavor to procure you some subscribers.*

Respectfully, &c. &c. CHILTON ALLAN.

RECEIPT FOR MAKING SOFT SOAP.

GEORGETOWN, D. C., May 16, 1854.

Mr. Sands:—I enclose you my subscription for the present year; we have not received the Farmer for the present month; and as the editor is supposed to know everything, you would much oblige me and others, if you would put a plain receipt for making soft soap in the country, in one of the ensuing numbers; likewise if there is any way of propogating fish from the roe or eyes of fish, as I have seen something of the sort in the newspapers.*

Our correspondent has placed, though by supposition, too high an estimate upon the knowledge of the Editor of this journal, and happens, upon the present occasion, to have called for light upon a subject of which he has no practical experience whatever. He has, however, obtained the information from a source entirely to be relied upon. Being at fault himself, the Editor applied to a Lady-friend, who, besides being a highly intellectual woman, is perfectly *au-fait* in whatever relates to the duties of a good house-wife—who is one of those rare women, that thinks that it adds to the dignity of her sex to combine economy with generous hospitality, and who deems it a pleasure as well as duty, not only to know how household matters ought to be done, but to do them herself whenever occasion may require her services. Confiding in her knowledge, and knowing her kindly disposition, we applied to her to help us out of our difficulty, and received the following written reply, which we give in her own language:

To make Soft Soap, save every kind of grease or fat-skimmings; should be stewed until the water all evaporates before putting it away with the oth-

er fat, as the water soon makes it spoil and smell bad. All kind of meat skins and bones will make soap. The first ley used must bear an egg—the last for filling up does not require to be so strong—9 lbs. of clear lard, if the ley is good, will make a barrel of soap (without boiling,) if put together and well stirred every day; but other kinds of grease are better boiled with the ley until the grease is dissolved; try it frequently by taking some in a dish, and cooling with a spoon till it ropes; if it does not rope, add a little more ley, if that does not make it, then try a little soft water. Soft or rain water should always be used to make soap, and the first water poured on to the ashes should be boiling hot; ashes of mixed wood is better than all one kind. Persons living in the country, may have a great deal of soap fat, by careful management at butchering time, as all the intestines of hogs and beef should be emptied and washed, then laid in salt and water for 24 hours, after which boil in weak ley, and when well drained, pack away in earthen pots, to be used in the spring for making soap. Good housekeepers, save from the table all the nice pieces of fat meat, and render them up nicely, for frying fish, potatoes &c. The cracklings make an agreeable addition to pone, or johnny cake. Every bone from the table should be thrown into a large pot, or half barrel of weak ley, and they will be nearly dissolved by spring, and assist greatly in soap making. Beef bones and suet make very white soap—*hard* soap is made by adding salt, and afterwards boiling with additional weak ley.

THE BRITISH CORN TRADE.

The change which has taken place in the weather since our last has naturally given rise to uneasiness in regard to the harvest. The showers were in the early part of the week partial, but few districts have wholly escaped; and the rain has since become general, and so heavy that the crops have been a good deal laid, and otherwise injured.—Should a period of settled dry weather succeed, the mischief might perhaps not be so serious; but it must be confessed that matters are now in a somewhat precarious position, and that great injury might result in case much more wet should be experienced. In this position of affairs an opinion as to the probable result of the harvest cannot be safely ventured on, and all we can say on the subject at present is, that, in point of quantity, we think there is a full average of wheat as well as of spring corn; wet weather for any length of time might, however, greatly detract from the produce by waste and damage. We sincerely regret that anything should have occurred to cloud the bright prospects which the appearance of the fields presented only a week ago; the change has been most unfortuate, but we are not inclined to give way to gloomy forebodings. True, the crops have been lodged and twisted about, but an interval of dry settled weather might yet set matters right. We certainly considered the late panic uncalled for, and endeavored to prove that such was the case; the disposition appears now to be to run to the other extreme, which may be equally dangerous.—*Mark Lane Express, Aug.* 4.

Brown, Shipley & Co.'s Circular.—LIVERPOOL, Aug. 4.—The reports of the appearance of disease in the Potato crop in Ireland, have created an active business in our Corn markets at an advance of 9d. per bushel in Wheat, 2s. per barrel in Flour, and 2s. 6d. per quarter in Indian Corn.

The prospects of a good European harvest are favorable. The (London) Mark Lane Express, 31st July, says:

"We believe that the yield will be a good average, and the quality fine. We have now auspicious weather; but it must be recollected that as yet hardly a sheaf of Corn has been housed, and a great deal must therefore still depend upon the weather. It is not easy to determine, under existing circumstances, what would be the probable range of prices provided the harvest in this country and on the continent of Europe should be well secured.

"Stocks abroad are, we believe, as nearly exhausted as with us, which must, in the natural course of things, have some effect. The war with Russia seems as far from a termination as ever, and regular supplies from that country cannot therefore be calculated on. This will sooner or later—to what extent we are not prepared to say, but it may we think, be safely concluded that after so complete a drain of old stocks as that caused by the very deficient harvest of last year, and with England and France at war with Russia, the largest corn exporting country in Europe, prices cannot all at once settle down to a very low level."

Montgomery Co. Md. Agricultural Society.—The annual meeting of this society will be held at Rockville, on the 14th and 15th Sept. inst. C. P. Holcomb, Esq., of Delaware, has accepted the invitation of the society to deliver the annual address, and in announcing the fact, the Rockville Journal adds the following remarks, to which we can most heartily respond: "A more judicious and admirable selection could not have been made; and the community are greatly indebted to the President for the opportunity which will be afforded them of seeing and hearing this accomplished, practical farmer. Nothing could add more interest to the occasion. It is hoped it will tend to secure such an attendance and exhibition of the agricultural resources of the county, as will justify, in some measure, the complimentary terms in which Mr. Holcomb has been pleased to allude to the county as a pioneer in the cause of agriculture."

The following is the letter of Mr. Holcomb, accepting the invitation of the society:

DEVONDALE FARM, *near New Castle,*
August 9th, 1854.

ROBERT P. DUNLOP, Esq.:

My Dear Sir:—Your esteemed favor of the 28th ult., was forwarded to me by our mutual friend, Mr. Bradly, and I duly appreciate the honor of being invited to deliver an Agricultural Address before your Society. We are all in some sort under obligations to Montgomery county for the lead it has taken in agricultural improvemeal, and I could not get my own consent to respond negatively to your kind letter, inviting the co-operation of a brother farmer on such an anniversary occasion. It is little, I fear, I can do or *say* worthy the occasion, but health permitting, I will be with you on the 14th and 15th of September.

Respectfully and truly yours,
C. P. HOLCOMB.

Lime and Guano Spreader.—We ask attention to this machine, advertised in our pages this week by Mr. Lewis Cooper, of Pa. It is, we believe, acknowledged to be the best thing manufactured for the purposes indicated.

WORK IN THE GARDEN.

SEPTEMBER.

Every one owning a farm should take pains in providing himself with a good garden, for it is there that he must look for many of those luxuries as well as necessaries, which add so much to the enjoyment of the table. Equally necessary is it, too, that he look ahead to have everything in season. In this respect he should have certain fixed rules of action, from which he should rarely depart,—only depart when governed by circumstances uncontrollable in themselves. Among the things which he should attend to, is that of making arrangements to have a supply of cabbages for use throughout the summer. By embracing the present opportunity, and availing himself of the advice we are now about to give, each may lay the groundwork of a stock of cabbages for use from early summer to early fall of next year. With this end in view we shall call attention to

Sowing Cabbage Seed.—Prepare a bed by manuring it freely with rich animal manure, digging it in spade deep, sowing ashes and plaster over it, and raking it finely. Then divide it into compartments, and sow on each compartment respectively, ½ an ounce of the following kinds of cabbage: *Early York, Early Imperial, Large Early York, Early Battersea, Early Sugar Loaf, Large Sugar Loaf,* and *Early Smyrna.* These several kinds, some being very early, some moderately early, and others late, will head at different times throughout the season, and thus furnish a supply of fine well headed cabbages throughout the entire season, from early summer to autumn.

Time of Seeding.—The seed intended to raise plants for transplantation this fall should be sowed from the 1st to the 10th of the month, and at all events, not later than the 15th.

Preparation of the Seed.—Soak the seed six hours in fish oil; then drain the oil off, and mix a sufficient quantity of ashes with the seed to dry and separate them, so that they may be sown accurately. The seed as dried must be evenly and thinly distributed over the bed, and raked in very lightly with a garden rake. The bed must then be patted down with the back of a spade or shovel, so as to bring the earth directly in contact with the seed; then dust the bed with an equal mixture of ashes and plaster.

If at the time of sowing the seed, drought should prevail, gently water the bed at the time of seeding, and every afternoon afterwards, until the plants come up, and until rain occurs.

Treatment of the plants.—When the plants first come up, dust them with a mixture comprised of 7 parts soot and 1 part flour of sulphur, just before watering them.

Cabbage plants at this season, suffer from lice and other vermin, to prevent which treat them to a few waterings of a solution made thus:—Place a half bushel of *horse dung* in a tight barrel. On the dung place in a small bag 1 quart of soot, and 2 oz. of flour of sulphur; then fill up the barrel with water, and let it remain 24 hours, when the solution will be fit for use. The barrel will bear filling up three or four times.

Time when the plants will be fit to set out.—In six weeks from the time of seeding, the plants will be fit to set out. When that time arrives, we will tell you how to manage them.

Sowing Cauliflower Seed.—From the 1st to the 10th of this month, sow cauliflower seed for transplantation in frames to stand the winter.

Working Cauliflower and Broccoli.—Keep your cauliflower and broccoli beds clean of weeds, and in dry weather make it a point of duty to have them *copiously* watered every other evening. If thus watered every evening, the effect will be the more striking, as moisture is absolutely necessary to their vigorous growth.

Siberian Kale.—Select a dry, sandy, loamy bed, spread over it a heavy dressing of a compost made of 6 parts rotten horse dung, and 2 parts ashes,—rake this thoroughly in, then sow kale seed about as thick as turnip seed is sown, rake the seed lightly in, pat down the earth with the back of a shovel, and roll the bed with a light garden roller. Then dust the bed with a mixture of 6 parts salt, 1 part ashes, and 1 part plaster, and from early spring for four or five weeks from the commencement of cutting them, you will have a supply of most delicious sprouts.

Time of Sowing the Seed.—From the 1st to the 10th of the month.

Spinach.—Work the advancing Spinach plants, and sow seed on a well prepared, dry southern exposed border.

Lettuce.—Set out plants to head, and sow seed in frames.

Radishes.—Sow seed of the Black and White Spanish varieties, from the 1st to the 10th of the month.

Endives.—In the first week of this month set out endive plants.

Celery.—Earth up your celery for blanching.

Cardoons should be earthed up for blanching.

Small Sallading of all kinds may be sown in the early part of this month.

Turnips.—Thin out and weed your turnips.

Gathering Seeds.—As these ripen, gather and spread them out on cloths to dry.

Herbs.—Perennial and Medicinal herbs, may be safely planted out in moist weather.

Weeds.—If there be any of these pests in your garden, have them pulled up and burnt.

As this will be the last occasion of reaching *all* our subscribers before the MARYLAND STATE AGRICTLTURAL SOCIETY will hold its *Fair and Exhibition*, we seize the occasion of appealing to the ladies whose relatives and friends are connected with the association, in order that THEIR DEPARTMENT may be well filled. We ask them, with that deference ever due to their sex, to make an effort worthy of themselves, and of the cause, to have such a *display* in the *Hall* of fruits, flowers and vegetables, the productions of the needle, the knitting kneedle, of preserves, pickles, and all things else, prepared as luxuries by good housewives, as will not only redound to their credit, but reflect distinction upon the association.

Hussey's Reaper in England.—In the Mark Lane Express, (England) of 24th July, we find an account of an exciting contest at the Royal Society's Meeting, between Croskill's Bell Reaper, and Hussey's, (made by Dray,) in which the latter was the winner.

MEXICAN GUANO.—Those who intend using Mexican Guano are referred to the advertisement of Mr. C. R. Pearce, and also to that of Messrs. Sterling & Ahrens, in our pages for this month.

FLORAL DEPARTMENT.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

After such an excessive hot summer, plants have suffered more than any previous year known by the oldest cultivator. Many plants have perished in consequence of the drought, and also by too much water, required even to keep them alive.—Plants if not carefully attended to, will go off under the care of the best cultivators, and suffer more in consequence with too much, than too little water. The soil becomes soddened if the water or drainage in the pot be stopped so as not to allow the water to pass through. They become decayed at the root before showing any signs in foliage, and it is utterly impossible to recover the plant. Many fine specimens have been lost in this way this summer, owing to the intensity of the heat, as might be termed, scalding at the root. Fuchias, Daphnes, Ericas, Epacrises, and many other finer rooted plants suffered much in this way, especially when in too large pots, which is becoming very fashionable, though not suitable for all plants; they are more liable to be lost than in a pot more suitable to their growth.

All plants will require to be looked over before putting in the house, by giving them fresh drainage, and re-potting if necessary; give a proper soil, and tie them up neatly, head down, and prune all such as have grown shapeless; it adds to their beauty as well as to their health and convenience in the arrangement of a collection when placed in the house; give plenty of room, and do not crowd the pots together, and finer specimens and better flowers may be expected.

Seeds of different plants for flowering may be sown, as Mignonette, Allysum, Pansies, Gilliflowers, Chinese Primroses, Caccolarias, Cinerarias, and any others that will give a bloom through the winter and spring. Budding of Oranges, Lemons, Roses, or any other plant increased in this way may be done the early part of the month.

Chrysanthemums, struck from cuttings, re-pot in proper sized pots for flowering, and give occasionally Guano-water to grow them strong. Pelargoniums that have been headed down, re-pot in fresh soil; sow seeds to obtain new varieties and keep up the stock.

Oxalises, re-pot a few for an early bloom. Roses re-pot ready for winter, and put in cuttings for a fresh stock. Have the houses thoroughly cleaned, flues and furnaces repaired and in order, glazing and painting done, and the houses in good order for the reception of the plants.

BEST LIME FOR AGRICULTURAL PURPOSES.

We have for the last nineteen years contended that lime made from oyster shells, was the best adapted to agricultural purposes, and we are pleased to find the following corroborative opinion advanced by D. B. Browne, Esq., in his recent valuable work, entitled, "The *Field Book of Manures.*" He says:

"The most valuable variety of lime for agricultural purposes, is that obtained from burning oyster-shells. Quarry lime is not so good on account of the magnesia which it often contains, and from its small quantity or total want of phosphoric acid."

For our part, we have always referred the superiority of oyster shell lime, over stone lime, to the per centage of phosphoric acid, which the former contains, amounting, on an average, to 3 per cent., or more, in all carefully conducted analyses. Many of the analyses which we have seen, of late years, bear upon their face the evidence of negligence—the evidence that conclusions had been jumped at. For such analyses we would not give a groat; for we do hold, that any analysis unless it be *ultimate*—unless all the substances to be found in the body analyzed, be determined, and pointed out, qualitatively, and quantitatively, is of comparative little value. To ascertain that one or two prominent elements exist in a soil, or any other substance submitted to analysis, is a superficial kind of operation that can find no sanction with us, so long as we believe as we do, that it is necessary that *all* the substances which enter into the constitution of a plant are essential to its healthful growth. Plants, we are aware, take up much greater per centages of some substances than they do of others; but this is no argument, that all found in fully developed plants are not important to their perfect growth and maturation, and we would ask, how is the culturist to be assured that the plants grown by him will find a supply, unless he knows what are the constituent elements to be found in the soil cultivated by him, or in the manaure he may apply.

ON BLIGHT IN PEAR TREES.

BY A. H. ERNST, CINCINNATI.

No man in the Western country is better qualified to write about pears and pear culture than Mr. ERNST; and as his advice or opinions are based on his own experience and years of careful observation, much reliance may be placed on his conclusions. In a late number of the *Horticultural Review*, is an essay by him, on the diseases of the pear tree, read before a recent meeting of the Cincinnati Horticultural Society, from which we take the following extract:—

"Long observation has confirmed my judgment that the disease [blight] is chargeable mainly to atmospheric influences. The Great Creator has, in his wisdom, so ordered it, that the vegetation, soil, and climate of every part of the globe act in perfect harmony, for the best development of the farmer. A departure from this state of nature is at the hazard of the health and longevity of the plant or tree, though this result does not invariably follow. The pear tree, as before observed, is not a native of this continent, but of a different hemisphere, where it grows to a large size and great age, as other forest trees do. All intelligent writers, so far as I know, are agreed that the improvement of the fruit has generally been at the expense of the hardiness and durability of the tree, [not a necessary consequence.] However, we have it so. We have imported an enfeebled race, and are exposing it to a new climate, the vicissitudes of which it is not fully capable of resisting. I care not for terms: whether you call it *Frozen Sap* blight or *Sun blight*; whether the effect is produced by sudden and rapid changes of temperature, or an excessive summer sun. In either case, it is the destruction of the natural functions of the tree, producing disease and death. The former is often tardy in its work, but the latter generally rapid and instantaneous. In the one case, it is brought to bear on the tree in a state of rest, when the sap-vessels are extended to their utmost capacity, to supply the demands of a rapid and luxuriant growth; when

this growth is in its most tender and delicate condition, the scorching mid-day sun does the mischief; the sap, by its rays is scalded and vitiated, a chemical process of decomposition takes place, its poison is soon carried to and mixed with other portions of the tree, and the whole is often irretrievably lost in a few hours. The whole remedy is, the moment that it is discovered on the limb, where this form of blight always makes its appearance, to top off until you come to the sound and healthy wood, and thus prevent its spreading. Do not stop to hunt insects, until you have performed this work, when you can do so leisurely.

Sun blight or *Fire blight*, is always most prevalent in a wet hot summer. There has been but little the last three years, and we shall certainly have no frozen sap blight to complain of next summer. This is to be attributed to rather unsual dry summers during this period; the wood having ripened well before winter sat in, and the growth not so luxuriant as in wet seasons.

As a remedy, or rather a preventive to the frozen sap blight, I would suggest the shortening in application, in September or October, to check the growth, and induce the maturing of the wood. This system is, perhaps, only applicable to dwarfs, as standards cannot well be reached. What is understood by shortening in, is to cut back the present year's new shoots to the firm wood, say one-third or one-half of it, as the case may require, so that the sap remaining shall be expended in perfecting the wood which is left, and not be stimulated by the leaves on the ends of the shoots to continue growth. This system is also practiced to force the tree into forming fruit spurs, and thus facilitate the production of fruit. Care must be observed in the time of performing this operation. It must not be so early in the season as to cause the bursting of the lateral buds, and thereby cause a more injurious growth than it is attempted to check. There need be very little risk in this; we must be governed by the state of the season. It is better a little late, than too early; when the majority of the leaves on the shoot are rigid and hard, is a suitable indication of the proper time.

Having said so much about the want of hardiness of the tree, it may be asked how I account for the trees that are to be found up and down our land, which have withstood the winter's storms and summer's heat from one to two hundred years? Before I answer the question, allow me to offer them as standing monuments against the exhaustion and insect theories. We have had some specimens in this vicinity—until the spirit of city improvements required their room, when the rude hands of the workman brought them low—whose existence was co-eval with the first impress of civilization, and they remained sound, healthy and fruitful to the last. Such specimens, it will be found, *have all originated from seed, and always from a hardier stock than the varieties of more modern introduction.* A friend has just given me the history of one in Guilford, Conn., which he says is over two hundred years old, measuring fifteen feet in circumference at five or six feet from the ground. It is now beginning to decay, but yields a considerable quantity of fruit. He says the fruit does not compare with the best now in cultivation, but when he was a boy, more than fifty years ago, it was considered very superior.

It is to these hardy remains of ancient days, we must look for constitutions to hybridize with our finer sorts, say, if you please, the Seckel, which is as hardy as any of them, for a class of trees producing superior fruit, and, at the same time, such as we can trust out of doors."

HOW TO CAPONIZE FOWLS.

The practice of the French country-women is to select the close of the spring, or the beginning of autumn, as well as fine weather, for the performance of their work. The parts necessary to be removed, being fixed in the abodemen, and attached to the spine at the region of the loins, it is absolutely necessary to *open the abdominal cavity* for the purpose of their extraction. The bird should be healthy, fasting, and about three months old. He is then to be secured by an assistant, upon his back, belly upwards, and his head down, that the intestines, &c., may fall up toward the breast; the tail is to be towards the operator. The right leg is then carried along the body, and the left brought backward and held in this position, so as to leave the left flank perfectly bare, for it is there that the incision is to be made. The said incision is to be directed from before to backwards, traversely to the length of the body, at the middle of the flank, and slightly to the side, between the ends of the breast-bone and the vent. Having plucked away the feathers from the space where it is intended to make the incision, you take a bistoury or a razor, and cut through this skin, abdominal muscles and peritoneum; it is better to do this at two or more cuts, in order to avoid the possibility of wounding the intestines—casualty that would, in most cases, be attended with fatal results. The intestines present themselves at the orifice, but you must not suffer them to come out; on the contrary, you press them gently aside, so as to have room for action. I may observe, that the incision should have been sufficiently large to admit of the fore-finger previously well oiled, being passed in the abdomen, and carried carefully towards the lumbar region of the spine; you will there find what you are in search of. You first reach the *left* substance, which you detach with your nail, or with your finger bent hook-fashion; you then arrive at the right, which you treat similarly; bring both substances forth; you finally return the intestines, sow up the wound with a silk thread—a very few stitches will suffice—and smear the place with a little fresh butter. Some persons recommend the amputation of the comb, close to the skull of the newly-made capon; but this is surely an unnecessary piece of torture—a useless addition to the sufferings of the poor bird. The proposed object of this amputation is to insure the recognition of the capon amongst his co-mates of the poultry-yard. Were such a distinctive mark necessary, it strikes us that the operation must have been, so to speak, thrown away; inasmuch as the superior size and bulk of the capon should, of themselves, be sufficiently indicative of his identity; but independent of these, I may observe that the *comb* of the capon does not grow to any size, and always retains a *pallid* color. Should it be proposed to caponize cocks belonging to varieties naturally possessing combs, it will surely be found, at the very most, sufficient to cut the tail feathers down to a stump. In some parts of the continent, the caponizers resort to still more unnecessary brutality. They cut off the spur of the poor caponized bird, and making an incision in its comb, as it were *plant* them in it; they are so held for about twenty minutes—in short, just until the blood co-

agulstes; they then become not merely permanently adherent, but actually *grow*. The less, however, said about these very, and needlessly inhuman practices, the better.

To return to our more immediate subject. The process having been performed as above described, the bird is placed in a warm house, *where there are no perches*, as, if such appliances were present, the newly-made capon might very probably injure himself in his attempts to perch, and perhaps even tear open the sutures, and possibly occasion the operation, usually simple and free from danger, to terminate fatally. For about a week, the food of the bird should be soft oatmeal porridge, and that in small quantities, alternated with bread steeped in milk; he may be given as much pure water as he will drink, but I recommend that it be *tepid*, or at least, that the *chill* be taken off it. At the end of a week, or, at the farthest, ten days, the bird, if he has been previously of a sound, vigorous constitution, will be all right, and may be turned out into the walk common to all your fowls. —*Richardson.*

STATE AGRICULTURAL SHOWS IN 1854.

We find the following list of State Shows arranged in chronological order in the American Agriculturist:

Illinois, at Springfield, Sept. 12—15.
Kentucky, Lexington, Sept. 12—16.
Lower Canada, Quebec, Sept. 12—16.
Vermont, Brattleboro,' Sept. 13—15.
Ohio, Newark, Sept. 16—22.
Michigan, Detroit, Sept. 26—29.
Pennsylvania, Philadelphia, Sept. 27—29.
Missouri, Boonville, Oct. 3—6.
New York, New York, Oct. 3—6.
New Hampshire, Oct. 3—6.
Maryland, Baltimore, Oct. 3—6.
Indiana, Madison, Oct. 4—7.
Wisconsin, Watertown, Oct. 4—7.
Connecticut, New Haven, Oct. 10—13.
North Carolina, Raleigh, Oct. 17—20.
Va. and N. C. Union, Petersburg, Oct. 24—27.
Virginia, Richmond, Oct. 31—3.
Tennessee, (East,) Knoxville, Oct. 18—19.
Georgia, Augusta, Oct. 23—25.
Iowa, Fairfield, Oct. 25.
National Cattle Show, Springfield, O. Oct. 25-27.

Rock Salt.—The Boston Cultivator notices the following experiment:—A person who kept 16 horses, made the following experiment on seven of them, which has been accustomed to eating salt with their feed: Lumps of rock salt were laid in their mangers, these lumps having been previously weighed were examined regularly, to ascertain what portion weekly had been consumed, and it was repeatedly found that whenever these horses were fed on hay and corn they consumed only two and a half or three ounces per day, and when they were fed with new hay they took 6 ounces per day. This experiment should convince us of the expediency of permitting our cattle the free use of salt at all times; and it can be given in so convenient a form as rock salt, it being much more palatable than the other in the refined state, and by far the cheapest. A good lump should always be kept in a box by the side of the animal, without fear of his ever taking it to excess.

CURE FOR GLANDERS.—I have lately discovered a remedy to cure the glanders in a horse; and as it may be useful to others, I send it for publication. Some time in May last, a man drove up and fastened his horses by mine, and came into the store; afterwards both of us came out, and I saw that one of his horses was sick. He told me his horse had the glanders, and that he thought it would have died the day before, it was so sick. Some days afterwards, the matter having been forgotten, I was passing near my horse; he appeared to be sick; I turned and went up to him and found his throat swelled to a terrible degree, so that he could hardly raise or lower his head more than an inch or two. I concluded something must be done, speedily. I tried one thing and another to no purpose. Now for a study. What are the glanders? Nothing but diseased glands; the little vessels that bring the saliva to the mouth and throat are diseased—they are stopped up and must be opened. What will do it? Tobacco will vomit, and may open them. I took half a pound of fine cut tobacco and poured two quarts of warm water on it, then let it soak for a short time, and bathed his throat and up to his ears, and then down his throat to his legs and between his fore legs. The application made him very sick, and would have vomited him if it were possible for a horse to vomit. He was bathed again in three hours and then again the next morning. The final effect was, that my horse could put his head to the ground after having been bathed the second time, and after the third bathing he could feed as well as ever, and has done well ever since. WM. M. SHEPPARD.

How to get rid of Rats.—Prof. Bascom, of Oberlin, in a letter to the Ohio Farmer says:

"Would it not be well to call the attention of your readers to the ease and certainty with which they may be relieved from the annoyance of the large brown rat? This impudent intruder often visits my laboratory and other premises. As they come singly, I 'take off' each, the night after I discover signs of his presence. I take half a teaspoonful of dry flour or Indian meal on a plate or piece of board, and sprinkle over it the fraction of a grain of strichnine. This is set in a convenient place; and I invariably find the culprit near the spot dead in the morning. The peculiar advantage of this poison is, that it produces muscular spasms, which prevent the animal from reaching his hole to die and decompose. It is needless to add that such a violent poison should be used with care."

WESTERN VIRGINIA FAIR.

This is to be held at the Island, near Wheeling, on the 13, 14 and 15th days of September, and will we have no doubt, be one of the finest of the season. Last year it was exceedingly interesting.

CALIFORNIA BARLEY.—We have received from Ch. Harvey, Esq. of Pa., a small sample of this grain, of which we should like to know something more. Will our friend Harvey give us some particulars about it. It might at a glance be mistaken for wheat.

☞At Harrisburg, Pa. potatoes were selling at $2 per bushel.

SHEEP RAISING.—A correspondent in Baltimore Co. mentions that a friend of his in Northern Pennsylvania had lost 70 lambs out of 300 dropped in the spring, in consequence of the cold weather. The only sure way of avoiding such losses in Northern latitudes, our correspondent urges, is to prevent the buck from going to the ewes earlier than the 25th of Nov., then the lambs will not be dropped before the 1st of April, when the young grass will be springing up, and if there are no roots for them, they will then not so much feel the want of them. There are no other kinds of roots except Potatoes, that keep so well as Ruta Bagas, and they are probably to be preferred to any other, either for man or beast.

Robbins & Bibb's Establishment.—We intended to have drawn attention to the new establishment of these gentlemen, in Light street, but must content ourselves with inviting our country friends, on visiting the city, to call and examine their boilers, ranges, stoves, furnaces, &c. We are so well satisfied of the superiority of the latter, that we have adopted them on our own premises.

GREAT LOSS, BUT SMALL GAIN.—It is thought that the heat and prolonged drought of the summer may have accomplished much in destroying the insects and animalculæ, which of late years have so greatly increased in some places as to render their existence a public calamity.

☞The following is given as the cost per mile of several important Railroads: Western, (Mass.) $64.520; Boston and Worcester, $70.231; New York and New Haven, $81.614; New Haven and Hartford, $54.355; New York Central, $76.-181; Hudson River, $81.812; Camden and Amboy, $68.576; Pennsylvania Central, $54,400; Baltimore and Ohio, $51.292; Michigan Central, $35.657; Cincinnati, Hamilton and Dayton, 44.327; Little Miami, $31.359; Michigan Southern and Northern Indiana Railroads, $43.500; Cleveland and Toledo, $25.000.

BALTIMORE MARKET—*August* 31.

The arrival of the steamer Europa, announced this day, shows that Cotton had declined 1-8d. but Breadstuffs were in good demand at previous rates. The indications are also given that the war was commencing in good earnest, and bids fair to be a protracted one, nothing but the death of the Emperor of Russia, in our opinion, being likely to bring it to a close very speedily, even if that event would do it. The latest accounts of the harvest in Europe were more favorable than otherwise, yet it is admitted that the old stocks of grain there, as well as in this country, are very light—the loss to so great an extent of the corn crop here also must necessarily have an important influence, not only on the price of that grain, but of wheat and other grains also; therefore, taking all things into consideration, grain of every description must for the next year, we think, continue at a very remunerating price.

Flour, Howard street, $9; city mills, $8a8.50; Ohio, $9.25; Wheat, market active, good to prime red, $1.70a1.77; white, fair to good lots, $1.70a 1.80; good to prime, $1.80a1.90, and choice parcels for family flour, $1.95a$2.—Corn is also active and firm—white, 84a86; yellow, 85a86; Rye, 105 for Md. and 1.12a1.15 for Pa.; Oats, Md. and Va. 49a52c. and Pa. 53a55c.—Cloverseed has advanced during the past month, and now is firm at $7 to 7.25 per bushel—some holders refusing to sell, a further advance being anticipated, as the crop is supposed to be very materially affected by the drought. Timothy seed, $3.50a4 per bushel; Whisky, 37½a38c. in bbls.; Provisions, prices fluctuating, and not much doing; Sugars are firm, but few transactions are taking place; Beef Cattle, 1000 head offered on Monday, 600 of which were sold to packers and city butchers, at $3a4 per 100 lbs. on the hoof, equal to $6a7.75 nett, and $3 50 gross—100 head held over, and 300 driven to Philadelphia; Hogs, live, $6a6.25 per 100 lbs.; Hay, baled, 16a 20, and loose from wagons at $14a17; baled straw, $14 for Rye, and 10 for wheat.—Naval Stores—Sps. Turpentine, 50a52c.; Tar, $3 75a4; Pitch, $2.50; com. Rosin, $1.65; No. 2, $2a2.50; and No. 1, $3a4 per bbl.; Varnish, 22a25c. per gallon; Plaster, $3.62 per ton; ground, $1.25a1.37 per bbl.; Rice, $3 50 for com. to 4.37 for prime.—Tobacco, quite active, and all that reaches market is sold promptly at full prices; com. to good ord. $5 25a 6; mid. $6a6.25, good to fine brown, $5.50a7; and fine brown, $7a9; the small lots from the upper countries are quoted at $6a7, the quality generally being common—Ohio is in good demand, and sells freely. The drought has affected the crop, and prices must advance.—Wool, unwashed, 16a18c.; pulled, 23a27, tub washed, 25a28; common fleece, 25a30, and fine, 30a 40c.

Another Instance of the Tape Worm Cured

BY THE USE OF

DR. M'LANE'S CELEBRATED VERMIFUGE.

NEW YORK, October 15, 1852.—This is to certify that I was troubled with a tape worm for more than six months. I tried all the known remedies for this dreadful affliction, but without being able to destroy it. I got one of Dr. M'Lane's Almanacs, which contained notices of several wonderful cures that had been performed by his celebrated Vermifuge. I resolved to try it, and immediately purchased a bottle, which I took according to directions; and the result was, I discharged one large tape worm, measuring more than a yard, besides a number of small ones. MRS. M. SCOTT,

No. 70 Cannon street.

The Happy Results from the Use of

DR. M'LANE'S CELEBRATED LIVER PILLS,

Are daily forcing themselves before the public. Our citizens will speak out. Read the following:

This is to certify that I was troubled with Liver complaint for six months, and being advised by a friend to use Dr. M'Lane's Celebrated Liver Pills, I got two boxes, and by the time I had finished taking them the disease had entirely disappeared. I therefore cheerfully recommend them to all afflicted with liver complaint, or any other disease arising from excess of bile. MRS. CARNES,

No. 5 Clinton street, New York.

P. S. The above valuable preparation, also Dr. M'Lane's Celebrated Vermifuge, can now be had at all respectable Drug Stores in this city.

☞ Purchasers will please be careful to ask for and take none but Dr. M'Lane's Liver Pills. There are other pills purporting to be liver pills now before the public. sep1

HICKOK'S PATENT CIDER MILLS,

FOR HAND OR HORSE POWER.

THESE Mills have been vastly improved.

1st.—The mill has been increased in size, so that we can put under a tub that holds nearly three bushels of apples after they are ground.

2d.—Instead of a solid bottom board, or one covered with cloth, to go under the tub, it has a bottom board grooved in a peculiar manner, and both it and the tub, after repeated and severe trials, have been found the best for the purpose—as they will always let the cider out clear and free from pomace.

3d.—The bottom or floor is constructed entirely different from the former ones; and the pomace box has been much increased in size, by passing behind and below the floor.

4th.—The castings have been made much heavier, (about one-fifth) and the shafts run in iron boxes bolted together.

5th.—Heretofore great trouble has occurred, in getting cylinders that would not swell and get out of place. That difficulty has been now overcome, by making them with heavy oak or ash staves, on IRON heads, the whole keyed together, and the staves *locked* in by the iron heads, so that it is next to an impossibility for them to get out of place.

The mill will make from 6 to 12 barrels per day, and has made 4 barrels in an hour.

They can be used anywhere, and can be moved by two men.

Price $40. Send your orders early if you want to be supplied. Send and get a pamphlet of recommendations. Over 50 dremiums awarded. Made solely by

W. O. HICKOK, Harrisburg, Pa.

☞Sold by E. Whitman & Co. Baltimore; D. Landreth, Philadelphia; Fitzhugh Coyle, Washington, D.C. sept-2t

Valuable Real Estate For Sale in the Valley of Virginia.

THE subscriber offers at private sale a most desirable and very valuable Farm. It lies adjoining the town of Lexington, Rockbridge Co. Va. to which point the Canal leading to Richmond is nearly completed.

The residence is within fifteen minutes walk of the Military Institute, Washington College, and other seminaries of learning, for which the town is justly celebrated. To a gentleman who is desirous of educating his family under his own eye, a more desirable situation could not be offered, being near enough the town to enjoy all its advantages, yet so far removed as to avoid many of its annoyances.

The farm contains 602 acres, near 200 in wood, the balance cleared land of the finest character of mulatto limestone, highly improved, capable of producing the heaviest crops of grain or grass that our climate will mature, and all well enclosed, with water in every field and lot, watered meadow, &c.

The improvements consist of almost every imaginable variety. The dwelling house is brick, very large and conveniently arranged for the accommodation of a large family—the walks and grounds about it tastefully arranged. The out-houses are of brick, well ventilated, and capable of accommodating all the hands necessary to operate the farm. There is a dairy convenient, with a fine limestone spring, a first rate orchard, meat house, ice house, poultry house, ash house, Blacksmith shop, granary, cow house, stabling for more than 20 horses, piggery, waggon house, large Switzer Barn, with granary underneath. The subscriber deems it unnecessary to say more to induce purchasers to view this property. It will be sold upon reasonable and accommodating terms.

sept 1-6t JAS. M. RANSON.

Lexington, Va. August 1st. 1854.

FARM IN AMELIA Co. Va., FOR SALE.—About 426 acres, binding on the Richmond and Danville Railroad, nearly 1-4 of a mile—is 37 miles from Richmond, and within 100 yards of the Railroad depot at Amelia C. H.—40 acres are in creek and branch flat. 200 acres in wood, ash and pine, the rest in cultivation, a good deal of fresh land, and 30 acres improved tobacco lots. The improvements are a small frame dwelling, 2 granaries, one of them new, 2 good tobacco barns, with prizes, &c., with servants cabins, stable, crib, &c.—nearly all under good fencing. This plan is worthy the attention of the enterprising, as it will be sold at a great bargain. Address SAMUEL SANDS, office of American Farmer, for further particulars. 1 sept 1-2t

Situation of Manager Wanted.

Any gentleman in Eastern Va., or N. Carolina, having a large estate and who is willing to give a liberal compensation for the services of an intelligent and active Manager, who is thoroughly acquainted with the most improved system of farming, and management of negroes, may hear of a reliable individual by addressing, "Energy," Cumberland, Alleghany Co., Md. [s1-1t*

NOTICE—To Agricultural Societies, and individuals requiring the best bred stock from England—embracing pure bred Horses, Short Horned Cattle, North Devons, Herefords, Ayrshires and Alderneys.

Also pure bred Southdown, Cotswold and Leicester Sheep and Suffolk, Essex and Berkshire Swine. Imported on Commission by Messrs. Thomas Betts & Brothers. Every information with regard to terms and shipment of stock to America, will be strictly attended to by applying to

AARON CLEMENT, Agent,
sep 1 South Street, above 9th, Phila.

FOR SALE—Six young Ayrshire BULLS.—The subscriber has for sale, at cash prices, ranging from $25 to $150, according to age and comparative merit, six young Ayrshire Bulls, from 1 to 30 months old. These young bulls, gotten by imported premium animals out of my favorite thorough bred Ayrshire cows, have been reserved out of about 50, with reference not only to their own points, but also to the characteristics of their parents, and may therefore be relied on as embodying the best traits for which this hardy breed of cattle is justly celebrated. The above will be exhibited at the approaching Cattle Show of the Maryland State Agricultural Society. RAMSAY McHENRY,
sep. 1-1t Emmorton, Harford Co. Md.

STAFFORD CO. LAND FOR SALE.—About 800 acres, besides about 200 acres of prime marsh land, lying between Potomac and Accokeck Creeks. The wood and timber would nearly pay the price of the tract. The most distant part of it is not more than ½ to ¾ of a mile from the landing. The steamboat from Washington, on the great Southern mail route, comes within a short distance of the place. The marl on it is exhaustable, and would produce a revenue to pay for the farm. A full description is left at the office of the American Farmer, where it can be examined. To an enterprising man it is an excellent opportunity for a speculation. Price and terms made known on application to S. SANDS, at this office. sep. 1.

THE NEW BRICK MACHINE is now in daily operation at my yard, on Locust Point. If driven by steam the clay is taken from the bulk, passed through a pulverizer, (which removes the stone) into the soak pit, where it receives the water—thence to the machine, which is geared to make 6½ revolutions per minute, turning out 5 bricks at each time, or 1,750 bricks per hour, including contingencies—Nine men and six boys, all common laborers, take the clay from the pit, and place the bricks on the floor. If there be no stone the pulverizer is not required; the clay is then thrown into the pit, mixed with water, and after remaining all night, is ready for use. Machine $425; Pulverizer, $75, with right to work it.

If driven by a horse, the clay is thrown into heaps, and each successive layer saturated; after remaining in soak all night, it is shovelled into the machine. They were formerly built of two sizes, four and five mould. By recent improvement, the speed of the shaft is increased without changing the gait of the horse, and thus the smaller size can make 1000 bricks per hour, worked by four men and four boys. It is liable to no accident, except from stone, which is liable to break a mould. Price $275. For further particulars in a pamphlet containing full instructions on Brick burning.
sept 1-2t Address FRANCIS H. SMITH

Reading's Patent Horse Power

CORN SHELLER & CLEANER.

ROBERT SINCLAIR, JR. & Co. have purchased the right for this County, a part of the Western Shore of Maryland, and the Southern Counties of Virginia and North Carolina; this valuable machine is admirably adapted for large Corn Planters, and the best Horse Power machine known. It is estimated to *shell, cob* and *clean*, in perfect order, for market, 1500 or 2000 bushels of Corn per day.

The works are remarkably simple, the machine being made without springs, or cog gearing, and in every respect a machine particularly desirable for shelling large crops, and what is now wanted for shelling corn by the large growers in North Carolina, Virginia, and Maryland. je 1.

YOUNG DEVON BULLS FOR SALE—of very superior stock—Apply at this office. aug 1-1t

THE HORSE! THE HORSE!!

NOBLEST OF DOMESTIC ANIMALS,

AND the one most frequently ill-treated, neglected, and abused. We have just published a book so valuable to every man who owns a Horse, that no one should willingly be without it. It is entitled,

THE MODERN HORSE DOCTOR,

And is from the pen of that celebrated English Veterinary Surgeon, Dr. GEO. H. DADD, well known for many years in this country as one of the most successful, scientific, and popular writers and lecturers in this branch of medical and surgical science. The book which he now offers to the public is the result of many years' study and practical experience, which few have had.

From the numerous and strong commendations of distinguished men and the newspaper press, we select the following:

Extracts from a letter from Hon. John H. Clifford, Ex Governor of Massachusetts

NEW BEDFORD, May 11, 1854.

DR. DADD—Dear Sir:—I hope your new work on the noblest creature that man has ever been permitted to hold in subjection, (the Horse) will meet with that success which all your efforts in this direction so well deserve.

Your obedient servant,
JOHN H. CLIFFORD.

From Hon. Marshal P. Wilder.

BOSTON, May 13, 1854.

DR. DADD—Dear Sir:—I am greatly obliged to you for the valuable treatise, the results of your investigations, which you have recently issued, hoping that it may meet with the patronage of a discriminating community.

I remain yours with great regard,
MARSHALL P. WILDER.

The Modern Horse Doctor, by Dr. G. Dadd, is a manual of genuine science, and ought to be owned and studied on the score of humanity, as well as interest, by every man who owns a horse.—*Boston Congregationalist.*

Dr. Dadd has had great experience in the cure of sick horses, and explains the secret of his success in this vol.—*N. Y. Tribune.*

The author of this work is well known as a most skillful veterinary surgeon. His book is based on the soundest common sense, and as a hand book for practical use, we know of nothing to compare with it.—*Yankee Blade.*

We know Dr. Dadd well, and are satisfied that he possesses most important qualifications for preparing such a book as this.—*New England Farmer.*

Messrs. Jewett & Co. have just published a very valuable work by Dr. Dadd, a well known veterinary surgeon, on the causes, nature and treatment of diseases and lameness in horses.—*Farmers' Cabinet.*

This is one of the most valuable treatises on the subject ever published; and no owner of that noblest of the animal race, the horse, should be without it. Especially should it be in the hands of every hotel and livery stable keeper. To many a man would it be worth hundreds of dollars every year.—*Ind. Democrat, Concord.*

By far the most learned and copious work on the horse and his diseases we have ever seen.—*N. Y. Evangelist.*

One of the greatest and most commendable qualities of this work is, it is *practical* and plain to the comprehension of those farmers and others for whom it is mainly designed.—The course of treatment favors generally a more sanative and rational system of medication than that recommended in any previously existing works on farriery. No farmer or owner of a horse should be without this book. Stable keepers, stage proprietors and hackmen we believe would derive profit by having at least one copy hung up in their stables for use and reference by their stable men.—*Daily News, Philadelphia.*

There is more common sense in this book than any of the kind we have ever seen, and farmers and owners of horses would find it a matter of economy to possess themselves of it. It will be of more service than the counsel of a score of ordinary doctors.—*Albany Courier.*

We deem this decidedly the best and most reliable work on the "Cause, Nature, and Treatment of Disease and Lameness in horses," ever published.—*Nantucket Inquirer.*

What we have read of this book induces us to regard it as a very sensible and valuable work; and we learn that those much more competent to judge of its value have given it their unqualified approval.—*Ev. Traveller, Boston.*

This book supplies a great desideratum which Skinner's admirable treatise on the Horse did not fill. Every man may be his own veterinary surgeon, and with much greater safety to this noble animal than by trusting him to the treatment of the empirical itinerants who infest the country. It is well illustrated and should be purchased by every man who owns a horse.—*Ev. Mirror, N. York.*

This is a book which should be forthwith put into the hands of all who own or drive horses, whether for the dray or gig, for the plow, omnibus or road, for hard service or pleasure.—*McMakin's Courier, Philadelphia.*

A good, clearly written book, which should be in the hands of every man who has a horse whose ills his affection or his purse make it worth while to cure.—*Bangor Mercury.*

This is a scientific, thorough and complete treatise upon the diseases to which one of the noblest animals is subject, and the remedies which they severally require.—*Troy Daily Budget.*

It is a valuable book to those who have the care of Horses.—*Hartford Herald.*

He is not worthy to have a horse in his care, who will not use such a work to qualify himself for his duties to this animal.—*Commonwealth, Boston.*

PUBLISHED BY

John P. Jewett & Co.,
BOSTON,

JEWETT, PROCTOR & WORTHINGTON,
CLEVELAND, Ohio.

☞ For sale by all Booksellers. sept 3t

Valuable Prince George Farm for Sale.

INTENDING to change my residence and pursuits, I offer for sale, privately, my farm MANTAU, located in the county of Prince George, nine miles from Petersburg, and two from the Norfolk and Peter-burg Railroad. It contains about 660 acres, 350 of which are ditched and set in clover. This Farm is in a high state of improvement producing fine crops of corn, wheat, and oats, is bountifully supplied with springs and wells of excellent water, and marl of the richest quality, extending through the entire land. There is a good portion of rich bottom land, producing good crops every year, without any apparent exhaustion. The uncleared land is heavily timbered with oak, hickory, ash, maple, gum, beech, pine and poplar, of a large and magnificent growth. The mansion house is now large and commodious, containing eleven rooms conveniently arranged and elegantly finished. It is situated in the centre of a Lawn, thickly set in Kentucky blue grass, and shaded with foreign and domestic trees and shrubbery. The north side of the house is ornamented with a portico 52 feet long, supported by four large fluted columns 16 feet high. On the south side is attached a porch, verandah, and bath-room. The whole of the side roofing is covered with tin, thereby lessening the danger from fire. The outer buildings consist of a large frame kitchen and laundry, smoke house, marl room, ice house, carriage and buggy house, granary 36x26 feet, four corn cribs, with sheds attached, overseer's house kitchens for servants, and ample stable room. The orchard has a choice variety of fruit trees of the very best quality; the vegetable garden is large and productive; the flower garden is stocked with many rare and beautiful flowers in a state of high and successful cultivation.

Having practised medicine profitably for twenty-seven years I recommend this as a very eligible location for a physician.

For terms, which will be reasonable, apply to me, resident on the farm, or in my absence, to Mr. Thomas H. Daniel.

sept 1tf ALEX'R M. BRYANT, M. D.

SUFFOLK PIGS from the stock of Prince Albert, which gained the gold medal at Smithfield Club, England—also the first prize at the exhibition of the Norfolk Agricultural Society, Massachusetts, 1853, two to three months old, supplied with food, delivered on board Express cars or vessel, on receiving thirty dollars per pair. Or they will be sent to any part of the United States, upon receiving a certificate of deposit for forty dollars, from the Postmaster, that upon their reception, in good order, free of expense, he will pay.

Address JAMES MORTON, West Needham, Mass.
sep 1-3t* Or GEO. B. P. FLAGG, Boston, Mass.

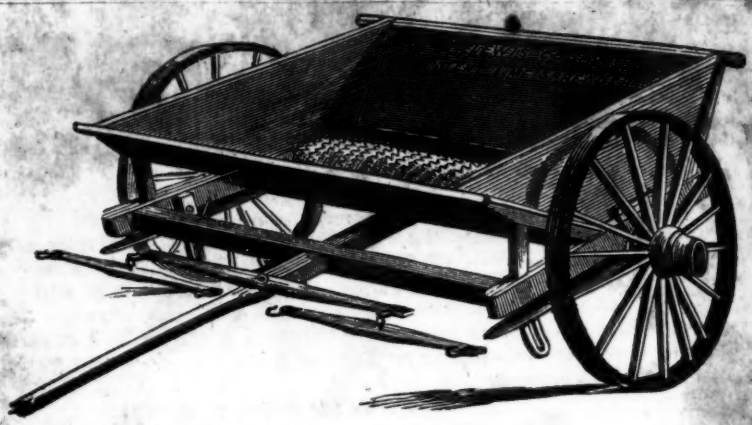
A GOOD FARM WANTED, near some Co. Seat or Landing on the Potomac River; land lying between Washington City and Aquia Creek would be preferred, but not absolutely required.

Communications, post paid, giving description and lowest terms, will meet with personal attention.

MILTON GARRETT,
sep1-3t* Corner East and 3d Sts. Washington.

ENGLISH LOP-EARED RABBITS, a few of the choicest of Asiatic, English and Spanish FOWLS. Also, SUFFOLK SWINE—same stock as took first premium at Ohio State Fair last fall.

GEORGE W. WILSON,
aug 1-tf Malden, Mass.



FURTHER IMPROVEMENTS.

COOPER'S PATENT LIME SPREADER!

THAT has given such general satisfaction, and was fully described in the American Farmer last September and October, has been so improved that they can be used to spread lime in quantities varying per acre from 2 bushels up to 200; also to sow Guano in quantities from 150 lbs. to any desired amount upward. They will crush all hard lumps of Guano at the same time it is distributing, and with such accuracy that in no other way can be excelled. Price $75.

He also makes machines exclusively for sowing Guano, Super-phosphate and other chemical Fertilizers, that are much lighter and cheaper, but will make as even work, and as speedy. Price $75.

All orders addressed to LEWIS COOPER, the Patentee, at Christiana P. O., Lancaster Co., Pa., will meet with prompt attention. sep1-3t

Cooper's Patent Lime & Guano Spreaders.

WE are Agents for Cooper's Patent Lime Spreader—Guano Spreader and Lime and Guano Spreaders combined.

PASCHALL, MORRIS & Co.
Agricultural and Seed Warehouse,
269 Market St., Philadelphia.

HALLADAY'S WIND ENGINE, thebest machine for raising water by wind power in use. PASCHALL, MORRIS & Co.
Agricultural Warehouse, N. E. Corner
sep. 1 7th & Market St., Philadelphia.

DEERING & DEDRICK'S HAY PRESSES. We are prepared to supply these excellent presses at a short notice. They are warranted.

PASCHALL, MORRIS & Co.
Agricultural Warehouse, N. E. Corner
sept 1 7th & Market St., Philadelphia.

SPAIN'S ATMOSPHERIC BARREL CHURNS We are now manufacturing these superior Churns of all sizes. They are warranted equal to any in use. PASCHALL, MORRIS & Co.
Agricultural Warehouse, No. 269 Market St.,
sept 1-1t Philadelphia.

PEACH TREES.—3000 Peach Trees, thrifty growth and choice varieties; 3000 Cherry, also Apple and Pear Trees, Dwarf and Standard Strawberries, Raspberries, Gooseberries, Currants, and other small fruits in great variety.—Also a large assortment of Evergreen and Deciduous Trees and shrubbery, both native and foreign. Trees and plants shipped to any part of the Union, and delivered in Philadelphia free of cost for freight. ☞Catalogues furnished on application. PASCHALL, MORRIS & CO.
sept 1-2t Nurserymen and Florists, W. Chester, Pa.

FARMERS AND PLANTERS DEPOT.

N. E. Corner 7th and Market St., Philadelphia.

THE most varied assortment of *Agricultural and Horticultural Implements, Seeds, Dairy Utensils, Fruit and Ornamental Trees, &c.*, in the United States, may now be seen at our Warehouse, and to which we respectfully inviet the attention of Farmers and Planters. It having been our earnest endeavor to secure custom, by keeping *only* the most improved and *best made* implements, we guarantee all articles sold by us, *fully equal* to representations. Orders from a distance as puctually and faithfully filled, as if the purchaser were present. We have but one price, to which we strictly adhere.

Comprehensive Illustrated *Catalogues*, will be furnished gratis, on post paid application.

PASCHALL, MORRIS & Co.
Agricultural Warehouse,
se 1 N. E. Cor. 7th & Market St., Philadephia.

Guano Agency.

B. M. RHODES, *General Commission Merchant*, 122 *LOMBARD STREET*, near Charles, Baltimore, Maryland. PERUVIAN GUANO, No. 1 furnished at the Government minimum price, $55, the ton of 2240 pounds, with a charge of $1 commission for purchasing and forwarding.

The same rate of commission will prevail whatever may be the established price of the article.

☞MEXICAN GUANO furnished at the importers price, and at the same rate of commission. Also Plaster and other FERTILIZERS. sep 1

SEED WHEAT.—Ohio and Washington County White Wheat, selected for seed, free of smut, rust, and other disease. Also the celebrated Gale Wheat and other varieties, for sale by N. E BERRY,
sept 1 1t* No. 150 Lombard St.

REMOVAL.

ON THE FIRST OF JULY, 1854, WE REMOVED TO OUR

New Agricultural Implement, Seed & Machine Store,

IN EXCHANGE PLACE,

Where we have secured one of the largest and most commodious Warehouses in the city. The increase of trade has made it necessary that we should seek a place better adapted to our business, and we have selected the above as being more central, and we trust, more convenient for our customers. In addition to the main warehouse, we are erecting a large storehouse in the rear, which, for convenience, we think, cannot be surpassed in this country.

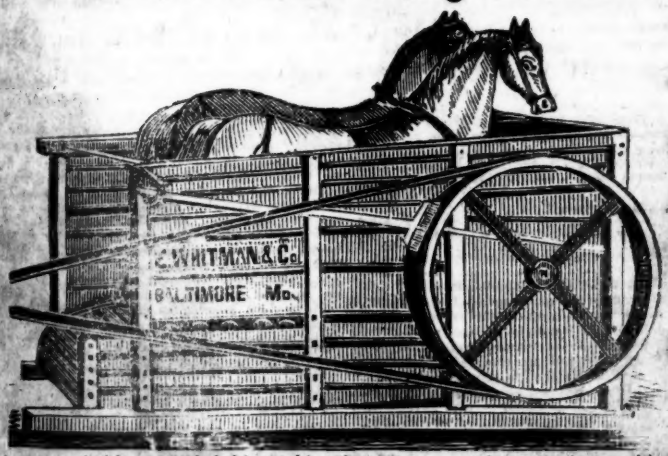
We are now receiving a large stock of new Implements, Machines, &c, at the New Store, where we shall be happy to see our customers when they visit Baltimore. Orders by mail will be promptly attended to by addressing

E. WHITMAN & CO.,
No. 63 EXCHANGE PLACE, BALTIMORE, Md.

E. WHITMAN,
E. W. ROBINSON.
BALTIMORE, July 1st, 1854.

E. WHITMAN & CO'S. PREMIUM WROUGHT IRON RAILWAY

Horse Power and Threshig Machine.



The great success that has attended this machine the past ten years has caused men without principle or genius, to attempt an imitation of it, and Farmers and Dealers have been deceived and disappointed by the purchase of spurious machines, supposing they were the same as ours. We now wish it understood by all who intend to purchase this machine, that besides ourselves, there is *not a man* in the United States who manufactures our Wrought Iron Railway Horse-power and Thresher. We have been engaged in the manufacture of this machine for more than ten years, without the slightest change of principle, during which time scores of Railway Powers have been introduced by the side of ours, and have been tried, condemned and abandoned as being worthless. One evidence of the superiority of our Railway Power over all others, is the fact that some manufacturers who ridiculed our Railway Power a few years ago, are now trying to imitate it. The public will be their own judges of how much confidence should be placed in the judgment and honesty of such people.

For the year 1854, and until further notice the prices will be as follows, viz:

Best Wrought Iron Double Railway Horse-power,	$ 115 00
Best 24 inch Iron Cylinder Thrasher, including Wrenches,	60 00
Straw Carrier,	15 00
Band,	10 00
(5 per cent. will be deducted from the above prices, if paid for on delivery.)	$ 200 00

Reading's Patent Corn Sheller.

READING'S CORN SHELLER is of recent invention, and the most powerful and simple machine of the kind we have noticed in this country. They are capable of shelling and cleaning 1,500 and 2,000 bushels of corn per day, and by the principle of construction the corn is shelled without breaking the grains, and all prepared by the process ready for market, with the greatest dispatch. PRICE, for machine as per figure, which separates the cob from the corn, $45. Price for do. with Fan attached, which separates corn and chaff, and in prime order for market, $55.

R. SINCLAIR, Jr. & CO.

Aug. 1 58, 60 AND 62, LIGHT STREET, BALTIMORE.

Ault's English Garden Seeds.

JUST received by Steamers Via. New York, our usual supply of first rate Cabbage seed, consisting of Early and Large York, Bullocks heart, Flat Dutch, Savory, Cauliflowers, &c. &c., also Skirving's Ruta Bags. and Yellow Hybrid, White and Red-top Flat, Norfolk Turnip seed, also Cucumber. Spinnage, and Kale seed, all of which are of the same superior quality, as those heretofore sold by us. Wholesale and retail.

SAMUEL AULT & SON,
aug 1-2t Corner Calvert & Water Sts. Balt. Md.

JAMES RIVER LAND FOR SALE.—By authority of the last will and testament of Mr. Thos. Wynne, deceased, I offer for sale the Farm on which he lately resided, lying on James River, in James City County, Va., and known as the "GROVE." This tract contains about 1200 acres of land, of which about 400 are cleared and in a high state of cultivation, and the residue heavily timbered with pine and oak, lying from one to two miles from the river—eight or ten thousand cords of pine may be cut, leaving an ample sufficient quantity for the purposes of the farm. In addition to this there is a large quantity of locust timber, within one hundred yards to a half mile of the river. The river bank for a mile and a half consists of an inexhaustible bed of marl, convenient for shipping, from the sale of which the late owner made considerable profit, and for which there is still a demand; as also other beds of marl, in large quantities, and convenient to all parts of the farm. The whole of the open land has been mailed once, and about one-half of it twice. The situation of the farm is such as to make it susceptible of the very highest state of improvement, and it now produces heavy crops of corn, wheat, clover, oats, &c. On the farm is an orchard of young fruit trees of every variety, and of the very best selections. On the river, in bold, deep water, is a short and wide wharf, convenient for shipping the produce of the farm, &c. and where two steamers touch daily, running between Richmond and Norfolk, (it being to either place only a trip of a few hours.) The late owner has been running a line of stages in connection with these steamers, from this ("Grove") wharf to Williamsburg, a distance of seven miles, and to Yorktown, a distance of nine miles, and found the business very profitable. A contract now in force, embodding the running of stages to Williamsburg, will expire by its limitation in about 18 months, when the business may be again resumed, if desirable. The residence is situated immediately on the river, commanding a magnificent view, and is a very large and substantial brick house, having four large rooms below and three together with a large basement and attic.

The out houses are two brick kitchens on either end of the dwelling, a brick store house for farming implements, &c. new framed carriage house, smoke-house, dairy, poultry houses, and commodious barns and stable. Within a half mile of the residence is a house for the overseer, and comfortable negro quarters—all new framed houses of the best material, with brick chimneys.

To any one wishing to make a profitable investment of capital in real property, this sale really offers inducements but seldom met with.

This property, together with considerable improved and farming utensils, crops, &c. &c. will be sold publicly to the highest bidder, on the premises, on TUESDAY, the 4th of November next, the sale to continue from day to day until finished.

TERMS, which will be liberal, made known on the day of sale; and in the meantime, persons desiring information will be promptly answered by addressing the subscriber, at Williamstown, Va. and are invited to visit and view the premises.

aug 1-ts ROBERT E. WYNNE, Executor.

To Landed Proprietors.

THE undersigned, in acknowledging the many favors conferred upon him by his kind patrons, embraces this opportunity of informing them in their ends and the public generally, that he is prepared to survey and subdivide Land, lay off cities, towns, villages, cemeteries, &c. &c. to do Levelling, make Profile, Grade and make Roads, and all other business in his line, will meet with prompt attention and dispatch. WM. SIDES, 23 Second St. Balt.

REFERENCE.—Chas. B. Calvert, Esq. President of the Md. State Agricultural Society, Bladensburg, Md.; Edward Purviance, Jr. Esq.; Henry Mankin, Esq. Baltimore; Wm. Gesback, Esq. Baltimore; Charles Shipley, Esq. Baltimore; Dr. T. H. Buckler; Messrs. Jno. and Isaac Jewett.

MEXICAN GUANO—ITS MONEY VALUE IN RELATION TO OTHER MANURES.—Concentrated manures and labor saving machinery have become synonymous ideas in agriculture. The more complicated and expensive machinery have been pruned, until their simplicity of construction brings them within the reach of every farmer. Science has been equally busy in sifting the chaff from the manures, but the agriculturist is slow to appreciate this improvement.—The sun *constitutes* in manures, as in other things, cost more, and are the source of more controversy than the more important principles. The celebrated Baron Liebig, whose untiring investigation on this subject, together with his open and unhesitating recantation of any error which he may have adopted merit for him our confidence as *the* honest philosopher of the age, was at one time devoted to the Ammonia theory, but has, for several years attached more importance to those persistent manures which are permanent in their influence. He does not deny the transient influence of Ammonia, nor its value on *many* soils which do not contain a sufficient quantity *naturally*, but he prefers to improve the texture of the soil, and to obtain the natural supply from the atmosphere, rather than purchase it at every crop; especially as four fifths of the air we breathe is the element of Ammonia, and plants exhale or give off more Ammonia than we give them in manure. By increasing the proportion of *soluble* silica in a soil, Ammonia will be rendered *available* and the soil will *supply itself*; but there is another element (Phosphoric Acid) which cannot be naturally supplied, if deficient in the soil, but which all admit *must* be applied *artificially* in order to insure the full development of the resources of the land, and the full return for the labor bestowed on its cultivation.

It is now universally admitted that these two, Ammonia and Phosphoric Acid, are *the* valuable elements of *all* manures, and effects have been attributed to ashes and marl and even lime, which were entirely due to the Phosphoric Acid they all contain. See Harris' Prize Essay on Phosphoric Acid, Patent Office Report, 1852-3, page 4-2, also page 391.

"Per cent." of Phosphoric Acid in the ash, of

Cotton Plant and Seed.	Red and White Wheat.		Corn.	
15	53	47	44	40 to 48*
85	47	53	56	60 to 52†
100	100	100	100	100 100

(These figures must be *more* than doubled in order to form Bone Phosphate of Lime.)

(Other elements, (*fractions omitted.*)

The phosphates in the whole of one corn plant on the first of August do not exceed one grain—by the middle of August they amount to more than two grains—before the end, more than four grains—in October, nearly six grains; and on the 18th of October, the *kernels alone* from *one* plant yield more than thirty grains (or the sixteenth of an ounce) of Bone Phosphate of Lime. A good crop of corn will remove from one acre 125 lbs. of Bone Phosphate of Lime, or as much as is contained in 500 lbs of best Peruvian Guano.

One ton of Peruvian Guano yields about 500 pounds Bone Phosphate of Lime.

One ton of Mexican Guano yields about 1400 lbs. Bone Phosphate of Lime.

One ton Bones yields about 1000 lbs. Bone Phosphate of Lime.

If Bones are worth $35 per ton, the Mexican Guano is worth $50 per ton. Bi-phosphates may be formed by simply mixing one ton of Mexican Guano and 500 pounds Oil of Vitriol with a cask on an earthen floor or pavement; but my experience in the use of Bi-phosphates would lead me to compensate for its solubility by adding more of the Phosphate, rather than by converting it into a Bi-phosphate. For instance, it 500 pounds of Mexican Guano will give one-half pound of soluble phosphoric acid to an acre every month, and I want one pound per month, I prefer to apply 600 pounds, rather than spend the money in Oil of Vitriol; and at this rate the 600 pounds of Mexican Guano should supply my soil for 25 years, and for a much longer period if my shou d result from the *natural* disintegration of the soil in the meantime: indeed, Caird's English Agriculture says that lands once dressed *never* revert again to their original impoverished condition," (referring to grass lands.)

This Guano should be sown broadcast, at the rate of two barrels per acre, and can be applied on land recently limed where it would be impossible to use Peruvian Guano without great loss. *As a top dressing to any crop that has lost its color, or appears yellow* it should be mingled with 50 pound of the Nitrate of Soda, which can be had at 5 cents per pounds, and is much cheaper and more efficient than Peruvian Guano. *as a Spring dressing.* See F. H. Pusey on "Cubic Saltpetre, and its use in small quantities, as a restorative to corn crops," page 19, London, 1852.

FICULIARITIES OF THIS GUANO.

1st—It is not volatilized or injured by the sun and is not washed out of the soil by the rains in *less than thirty years.*

2d—It can be applied to the "Corn" crop at any time *before* the last "cultivation" in July.

3d—It supplies the element that is removed from the soil by Indian Corn.

4th—It will double the crop of Corn if phosphoric acid is deficient in the soil.

5th—It is cheaper, more permanent, and more certain than Peruvian Guano.

6th—It contains more phosphoric acid than Bones, in the proportion that the bones of fish are richer in this element than other bones.

7th—It *contains no sand*, as the bird that feed on fish have a muscle stomach and do not use gravel; and the islands upon which it is deposited are *pure* lime or coral.

DAVID STEWART, M. D.

LABORATORY OF STATE CHEMIST,
No. 29 Exchange Building.

Mexican Guano is a substitute for Bone Dust and Mineral Phosphate of Lime, and is of superior excellence to them (other things being equal) proportionable to its fineness of division. At the same cost, when mixed with Peruvian Guano, it is better than peruvian Guano alone, it used under the following circumstances: 1st. On all those soils where a deficiency of phosphoric acid has been shown by my chemical analyses. 2d. On all soils similar to those where Bone Dust or Dissolved Bones, Mexican, Patagonian or African Guano or Mineral Phosphate of Lime has acted well. 3d. It will be *safest* to apply the above mixture on all soils which have not been analyzed and where no trials have been made of the Mexican, African or Patagonian Guano, Bone Dust, Superphosphates, or Mineral Phosphate of lime.

For a more detailed statement on this subject see Baltimore Weekly Sun, of April 15, 1854.

JAMES HIGGINS,
State Agricultural Chemist of Maryland.

Dr. J. S. Armistead, of Virginia, in a letter dated February 8, 1853, and published about that time in the Richmond Enquirer, recommends this Guano for Tobacco. He says:

"Our old lands in this region, and I doubt not, generally in middle Virginia, are more deficient in Phosphates and Potash than any other of the mineral manures; and the Tobacco plant must have these elements in order to ripen it well. The Peruvian Guano has but a small part of its value in Phosphates—only about one-sixth—and five sixths of its money, or near $40 per ton, in ammonia, which powerfully stimulates the growth of Tobacco, without causing it to ripen, or without giving it the healthy growth which will ensure it against firing. The Mexican Guano is the richest that has been brought to this country in Phosphates."

It is a most valuable manure for Indian Corn, and shou'd be used by every Planter, as it does not waste itself in the stalk and leaves, but goes to the corn. The same applies to Potatoes and all root crops, as well as Oats and Barley. For Tobacco it has been found better than Peruvian Guano.

P. S.—All the cargoes I am now offering for sale, were imported about nine months since—consequently are much drier than those recently arrived.

For sale in lots to suit purchasers, at the lowest market price of an equal quality, by

C. R. PEARCE, Importer,
sept 1-1t 66 Buchanan's wharf.

Phosphorated Peruvian Guano.

THIS valuable Fertilizer is composed of two-thirds calcined Bones, reduced to powder, and one-third Peruvian Guano. The bones of which it is composed, contain at least 40 per cent. of Phosphoric Acid, and the Peruvian Guano 17 per cent of Ammonia. As it is now a well established fact, that Phosphoric acid and Ammonia are the agents necessary for nearly all unproductive soils, and as the undersigned will warrant the per centum of Phosphoric Acid and Ammonia, and the proportion of these agents in the composition as above specified, we can with confidence recommend this fertilizer to the agricultural community. The proportion of 2 3 calcined bones and 1-3 Peruvian Guano is recommended by our State Agricultural Chemist. I offer this article for sale at $45 per ton. Also, Calcined Bones, at $25 per ton. ☞ Mapes' Improved Super-phosphate of Lime, received from the Agents in New York, at $52 per ton

sept 1-1t N. E. BERRY, 150 Lombard street.

A SMALL FARM FOR SALE.—The subscriber offers for sale his farm, lying in Richmond County, Va. containing 250 acres, one hundred of which is in woods, consisting of Oak, Chestnut, Pine, and first rate Red Cedar. The soil is kind, susceptible of improvement, and easy cultivation, with good fencing, and well watered, &c. located in an excellent neighborhood, convenient to a Mill, Churches, and the Court House.

☞ Terms, six dollars per acre, with one-third of the purchase money to be paid in cash, and the balance in two equal instalments of one and two years—credit, with interest from the date of the deed. Address Nomony Grove P. O. Westmoreland Co. Va.

sept 1-tf GEO. H. NORTHAM.

Rappahannock River Farm for Sale.

THE undersigned offers for sale his Farm, known as North End, very conveniently situated on Rappahannock River, Middlesex county, Va. The tract contains about 350 acres, one half of which is woodland; the remainder is enclosed and divided with all suitable buildings in good order. The soil is a productive loam, easily improved, and has been greatly benefited by liming, &c.

The dwelling house is new, and commands a beautiful water prospect. The neighboring waters are proverbial for their excellent Fish and Oysters.

Persons desiring to purchase, may avail themselves of the Baltimore and Fredericksburg steamboats, which land passengers at North End.

For further particulars, address J. C. BRICKENSTEIN,
sept 1-tf* Sandy Bottom P. O., Middlesex Co., Virginia.

Fruit and Ornamental Trees for Sale.

30,000 PEACH TREES, one year's growth on the bud.

30,000 Apple; 10,000 Standard Cherries; 3,000 Dwarf Cherries; 20,000 Dwarf Pears, one, two, and three years' growth on the bud. Also, Standard Pears, Plums, Apricots, Almonds, Grapes, Raspberries, Currants, Strawberries, &c., &c. 50,000 Seedlings of Silver-leaved Maples, of two years' growth; 50,000 Deciduous and Evergreen Ornamental Trees, of large and small size.

Persons residing at the South and West should send their orders early. Catalogues with prices annexed will be sent to all applicants. Address, ISAAC PULLEN,

sept1-3t Hightstown, New Jersey.

A VALUABLE FARM FOR SALE,

THIS highly improved Farm, situated in Lime Stone Bottom, a short distance East, from the country seat of Baltimore County, 8 miles from Balto., is one of the very best lime stone Farms in the State, either for grain growing or grazing, one of the most respectable neighborhoods, and unsurpassed in health; it contains 450 acres, and will be sold in whole or in part, and may be divided with farm buildings, which are ample for a respectable family, or with the mansion and improvements which are of the best character. The purchaser will have the opportunity of supplying himself from the farm, with some of the finest stock in the State, and also with a full stock of the most improved farming implements. It is seldom such property is found in the market. The present proprietor being engaged in business in the city, finds that it now claims his entire attention. The terms will be made convenient. Apply at No. 28 South Market Street, Baltimore. sept 1-6t

Choice Poultry and Pigs for Sale.

50 pairs of Brahma Pootra Chicks. at $5 per pair, *bred from prime stock*; 50 pairs of Sumatra Pheasant Game, at $5 per pair, the best imported blood. Mexican, Java, English and Domestic Games, $5 per pair—choice bloods.

Brood Sows, of Cheshire and China stocks, also 25 pairs of Suffolk and China—Cheshire and China, Suffolk and Cheshire Pigs for sale, price, $5 to $10 per pair.

The low rates for this choice breed stock, is in effect to close out immediately the redundant stock—all orders addressed to DR. GEO. W. LAWRENCE,

sept 1-1t Catonsville, Balto. Co., Md.

FOR SALE.—A beautiful dark bay Stallion, symmetrical in form and of superior action. sired by Ducatur, out of a Blooded Mare, owned by Capt. Glasscock, of Westmoreland, Va., his sire was gotten by Imported Priam, out of Ariadne; she by Gobannah, as we are prepared to show; the pedigrees of Ariadne and Priam may be further had by reference to the American Turf Register. This rare opportunity for the purchase of so celebrated an animal, may be had at the Agricultural Fair, in Baltimore, October next, if he is not disposed of before, by SAMUEL SANDS, at the office of the American Farmer. sept1-3t

FOR SALE, 3 ALDERNEY BULLS, one of them between 3 and 4 years old, has taken two prizes at the State Cattle Show, of 2, 6, and 11 months. Will be sold very low, if soon applied for. Enquire of W. E. at this office. sept

WANTED—A Man and his Wife, whose principal duty it will be, to take charge of the country house of a gentleman residing mostly in the city, and to manage a small piece of a few acres, for which he will have the assistance of a hand. None but a person who can bring unquestionable references, need apply. Apply at this office. sept 1-1t

DRAINING TILE.—The subscribers will have ready for delivery in a few days, some thousands of Draining Tile, of the most approved pattern, which they will dispose of at $11 per 1000, about one foot length, 2½ inches bore. made of Baltimore clay. Those wanting had better apply early, as the enquiry for this tile has been very great, and not before to be supplied. A sample will be left at this office.

Also *Fire Brick*, of the most approved quality.

RITTENHOUSE & CRAWFORD,

Brick Makers, W. Pratt St., near the Cattle Scales, Balt., Maryland. sept 1-1f

STOCK FOR SALE.—3 nearly full bred Devon Bull Calves, 9 and 5 mos. old. Also 1 Devon Bull, 2 years old. A 3 4 Devon Cow with a bull calf by her side, 7-8 Devon, for $50—25 South Down Buck Lambs, and 2 South Down Bucks, 1 year old—1 pair red 3-4 Devon Oxen, 3 years old last spring—1 do. do. smaller—20 South Down Ewes, if taken in a lot Apply for further particulars to F. G. S. at this office. sept 1-1t

100 TONS MEXICAN GUANO, of superior quality, just received per Schr. Adelaide, for sale by STIRLING & AHRENS,

sept 1-6mos. 54 Buchanan's Wharf.

F. B. DIDIER & BRO.

No. 97 North Paca Street, Baltimore,

TO PORK AND BEEF BUTCHERS AND PRIVATE FAMILIES AND OTHERS.

F. B. DIDIER & BRO. Improved Sausage or Meat Cutter for 1851. ☞ Patent applied for. This celebrated Machine is warranted with proper care and use, to cut or mince 4 lbs. of fine meat per minute; or 240 lbs. per hour, not liable to get out of repair, and easily operated by a small boy. The simplicity of construction and the ease with which every part subject to wear may be replaced, serve to recommend this as the cheapest and most perfect machine ever invented. Being made entirely of iron (with one or two exceptions,) renders it much more durable than those usually made of wood, and much easier kept sweet and clean, and no warping or swelling when necessarily used, as is the case with all others.

N. B.—One great objection to Meat Cutters is that the knives are stationary. In our machine the objection is obviated, as the knives can be taken out, cleaned, and put back in a minute. The machine is regulated for cutting fine or coarse meat by putting in more or less knives.

☞ It is warranted to cut sausage or pie meat equal to any machine in the country, both as regards quantity and quality. Also, warranted to cut 5 times the amount, and of better quality than any cutter at the price. Again—less complicated, more durable, requiring less power to operate it, than any other invention of the age.

☞ The Maryland State Agricultural Fair, and the Maryland Mechanics' Institute, awarded this machine a first class Premium in the years 1851, 1852 and 1853, and numerous of the like flattering character from discriminating judges, have on all occasions of competition favored this valuable article. Retail price $5.50.

A first rate article of Sausage Stuffer or Filler retail for $4, $4 50, $5, $5.50.

N. B. Agricultural Implement makers and venders, hardware merchants and others would do well to take this machine on sale, owing to its popularity and the liberal discounts made to the trade. The article is bound to be in the possession of every farmer and private family. We have store and ready for the season about 5000 Cutters, for sale we solicit buyers, wholesale and retail.

B. F. DIDIER & BRO.

97 N. Paca street, Baltimore, Md.

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